



VENT-FREE FIREPLACE SYSTEMS

INSTALLATION AND OPERATING INSTRUCTIONS

MODELS

24VFSC

24DBXC*

32VFSC**

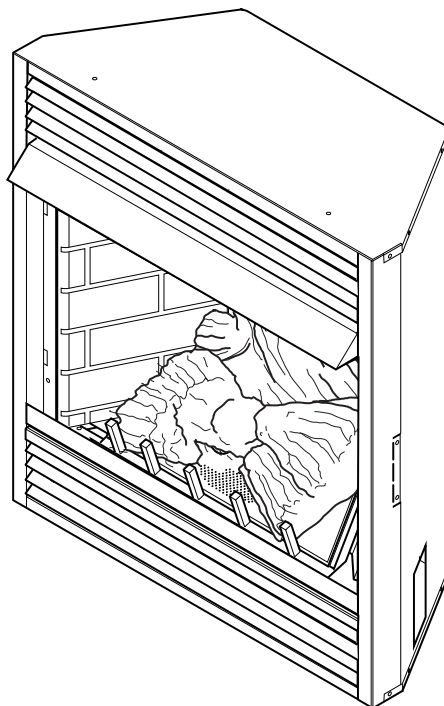
Natural Gas or

Propane/LPG

Manual or Milli-Volt

*Thermostat Control Only

** Milli-Volt Only



This is an unvented gas-fired heater. It uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. See page 9.

WARNINGS

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- WHAT TO DO IF YOU SMELL GAS
 - Do not try to light any appliance.
 - Do not touch any electrical switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

READ AND SAVE THESE INSTRUCTIONS

CONTENTS

24VFSC and 32VFSC gas log appliances described in this manual feature the
TRIPLE PLAY BURNER SYSTEM® technology
with exclusive triple effect technology
producing a full random yellow flame, full depth ember bed and glowing logs.

| | | | |
|---|----|--|------------|
| Important Safety Information | 3 | Operating Instructions | 29 |
| Product Features | 5 | For Your Safety Read Before Lighting..... | 29 |
| Product Features and Specifications..... | 6 | Manual Control Lighting Instructions | 30 |
| Getting Started | 7 | Thermostat Control Lighting Instructions | 31 |
| General Installation Information | 8 | Milli-Volt Control Lighting Instructions | 32 |
| Location of Fireplace | 16 | Match Lighting Instructions | 33 |
| Clearances and Height Requirements | 17 | Cleaning and Servicing | 34 |
| Fireplace Framing | 18 | Blower and Optional Equipment | 34 |
| Connecting the Gas | 20 | Illustrated Parts | |
| Checking Gas Pressure | 21 | Cabinet Accessories..... | 35 |
| Electrical Wiring (Milli-volt) | 22 | DFX24C Milli-Volt, DFX24C Manual..... | 36 |
| Log Placement | 24 | DFX32C Milli-volt, DFX32C Manual | 39 |
| Flame Appearance | 26 | DBX24C T-stat | 40 |
| Installing Rock Wool and Checking Burner Flame .. | 27 | Troubleshooting | 42 |
| | | Warranty | Back Cover |

IMPORTANT SAFETY INFORMATION

INSTALLER

Please leave these instructions with the appliance.

OWNER

Please retain these instructions for future reference.

IMPORTANT

Read these instructions carefully before installing or trying to operate a vent-free gas heater in this firebox.

WARNING

- **Any change to this heater or its controls can be dangerous.**
- **Improper installation or use of the heater can cause serious injury or death from fire, burns, explosion or carbon monoxide poisoning.**
- **Do not allow fans to blow directly into the fireplace. Avoid any drafts that alter burner flame patterns.**
- **Do not use a blower insert, heat exchanger insert or other accessory, not approved for use with this heater where applicable.**

1. Due to high temperatures, the appliance be located out of traffic and away from furniture and draperies.
2. Children and adults should be alerted to the hazard of high surface temperature and should stay away to avoid burns or clothing ignition.
3. Young children should be carefully supervised when they are in the same room with the appliance.
4. Do not place clothing or other flammable material on or near the appliance.
5. Any safety screen or guard removed for servicing an appliance, must be replaced prior to operating the heater.
6. Installation and repair should be done by a qualified service person.
7. To prevent malfunction and/or sooting, an unvented gas heater should be cleaned before use at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners and circulating air passageways be kept clean.
8. **CARBON MONOXIDE POISONING:** Early signs of carbon monoxide poisoning are similar to the flu with headaches, dizziness and/or nausea. If you have these signs, obtain fresh air immediately. Have the heater serviced as it may not be operating properly.
9. This unit complies with ANSI Z21.11.2 unvented heaters standard.
10. Do not install the VFS Model in a bathroom or bedroom. The DBX Model may be installed in a bedroom, but not in a bathroom.
11. Correct installation of the ceramic fiber logs, proper location of the heater, and annual cleaning are necessary to avoid potential problems with sooting. Sooting, resulting from improper installation or operation, can settle on surfaces outside the fireplace. See log placement instructions for proper installation.
12. Avoid any drafts that alter burner flame patterns. Do not allow fans to blow directly into fireplace. Do not place a blower inside burn area of firebox. Ceiling fans may create drafts that alter burner flame patterns. Sooting and improper burning will occur.
13. **CAUTION:** Candles, incense, oil lamps, etc. produce combustion by-products including soot. Vent-free appliances will not filter or clean soot produced by these types of products. In addition, the smoke and/or aromatics (scents) may be reburnt in the vent-free appliance which can produce odors. It is recommended to minimize the use of candles, incense, etc. while the vent-free appliance is in operation.
14. An unvented gas-fired heater uses air (oxygen) from the room in which it is installed. Provisions for adequate combustion and ventilation air must be provided. See installation guidelines.

Continued on page 4

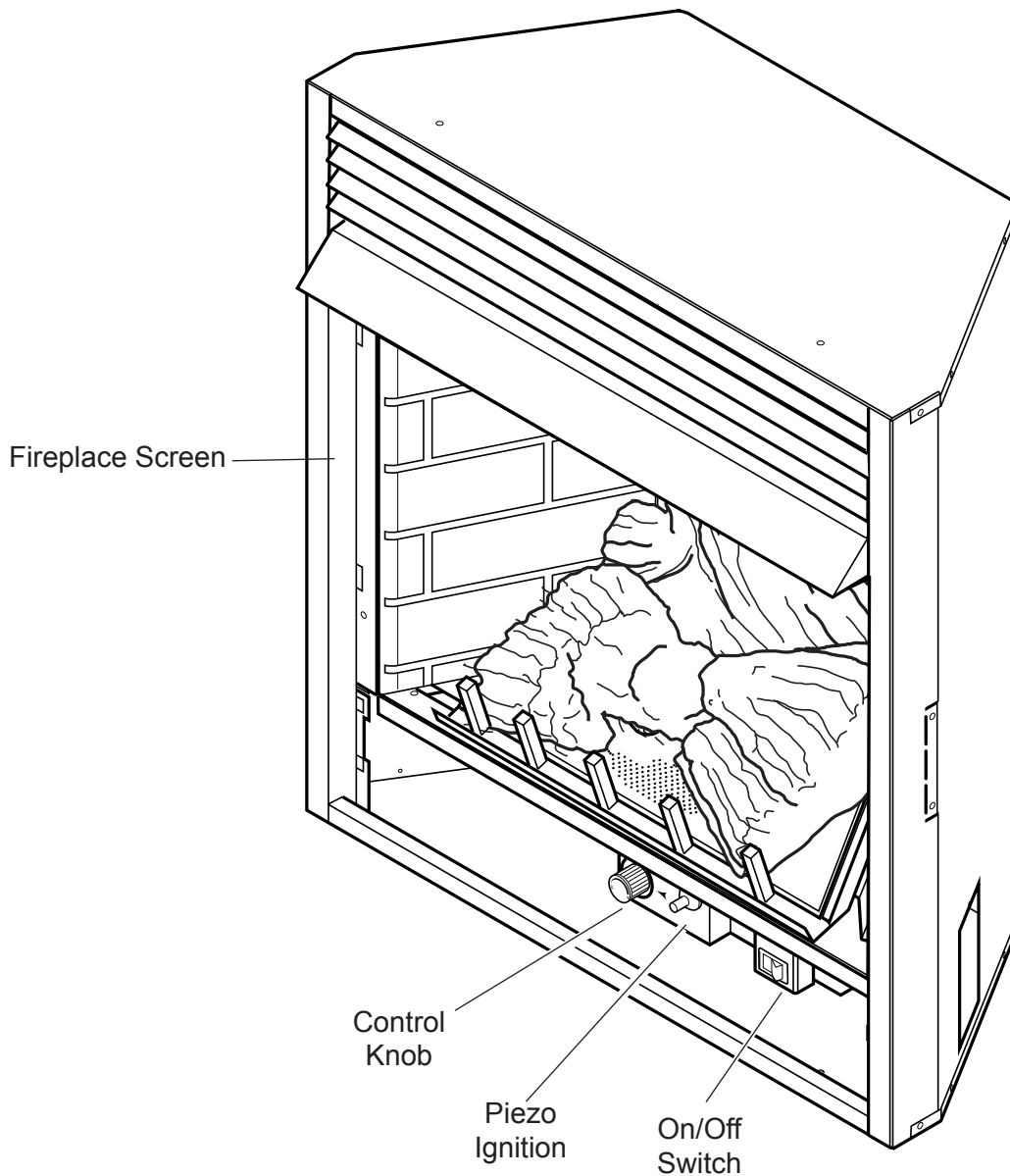
IMPORTANT SAFETY INFORMATION

15. Keep room area clear and free from combustible materials, gasoline and other flammable vapors and liquids.
16. Unvented gas heaters are a supplemental zone heater. They are not intended to be a primary heating appliance.
17. Unvented gas heaters emit moisture into the living area. In most homes of average construction, this does not pose a problem. In houses of extremely tight construction, additional mechanical ventilation is recommended.
18. During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance; possibly causing headaches, or eye or lung irritation. This is a normal and temporary occurrence.

The initial break-in operation should last two to three hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in period will be slight and will disappear with continued use.
19. Input ratings are shown in BTU per hour and are for elevations up to 2,000 feet. For elevations above 2,000 feet, input ratings should be reduced 4 percent for each 1,000 feet above sea level. Refer to the National Fuel Gas Code.
20. The appliance and its appliance main gas valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.5 kPa).
21. The appliance must be isolated from the gas supply piping system by closing its equipment shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.5 kPa).
22. Do not use this room heater if any part has been under water. Immediately call a qualified service technician to inspect the room heater and to replace any part of the control system and any gas control which has been under water.
23. Never burn solid fuels in a fireplace where a unvented room heater is installed.
24. Always have a fireplace screen in place when the appliance is in operation, and unless other provisions for combustion air are provided, the screen shall have an opening(s) for induction of combustion air.
25. Do not fill spaces around the firebox with insulation or other materials. These spaces must be maintained to prevent the firebox from coming in contact with combustible materials.

This appliance may be installed in an aftermarket, permanently located, manufactured (mobile) home, where not prohibited by local codes.

This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases.



***Figure 1 - Unvented Gas Heater
(Control Access Door Shown Open)***

Your vent-free fireplace must be mounted on the floor or on the optional fireplace hearth.

OPERATION

This unvented gas heater requires no outside venting and burns cleanly with high heating efficiency.

This zero-clearance unvented gas heater can be installed against (or recessed into) any wall that is accessible to a gas line.

PRODUCT FEATURES and SPECIFICATIONS

NATURAL GAS

| | Manual and T-Stat Pressure | | Milli-Volt Pressure |
|----------------------------|---------------------------------------|----------------------------|---------------------------------------|
| Regulator Pressure Setting | 4 in. w.c. | Regulator Pressure Setting | 3.5 in. w.c. |
| Gas Inlet Pressure: | Max. 10.5 in. w.c. Min. 5 in. w.c. | Pilot Regulator | 3.5 in. w.c. |
| | | Gas Inlet Pressure: | Max. 10.5 in. w.c. Min. 5 in. w.c. |

| Model Number | Type | Gas Rate | | Number of Burners |
|--------------|------------|------------|------------|-------------------|
| | | Max BTU/Hr | Min BTU/Hr | |
| 24VFSNMC | Manual | 22,000 | 15,000 | 1 |
| 24VFSNVC | Milli-Volt | 22,000 | 17,000 | 1 |
| 32VFSNVC | Milli-Volt | 26,000 | 20,000 | 1 |
| 24DBXNTC | T-Stat | 10,000 | — | 1 |

PROPANE / LPG

Note: An external regulator is required to reduce supply pressure to a maximum of 13" w. c.

| | T-Stat, Manual and Milli-Volt Pressure |
|----------------------------|---|
| Regulator Pressure Setting | 10 in. w.c. |
| Gas Inlet Pressure: | Maximum 13 in." w.c. Minimum 11 in. w.c. |

| Model Number | Type | Gas Rate | | Number of Burners |
|--------------|------------|------------|------------|-------------------|
| | | Max BTU/Hr | Min BTU/Hr | |
| 24VFSPMC | Manual | 22,000 | 17,000 | 1 |
| 24VFSPVC | Milli-Volt | 22,000 | 17,000 | 1 |
| 32VFSPVC | Milli-Volt | 26,000 | 20,000 | 1 |
| 24DBXPTC | T-Stat | 10,000 | — | 1 |

IGNITION CONTROLS

Piezo ignitor allows ignition of the pilot without the use of matches or batteries.

Manual control has four (4) positions:

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Valve position to light/maintain a standing pilot.
- ON** - Valve position to turn ON/OFF log set with remote switch/thermostat.
- LOW/HI** - Variable position to control flame height (heat output). Both front and rear burners are in operation to provide realistic glow and yellow flame.

Thermostat control has three (3) positions:

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Valve position to light/maintain a standing pilot.
- LOW/HI** - Variable position corresponding to desired temperature.

Continued

PRODUCT SPECIFICATIONS and GETTING STARTED

Milli-Volt control has four (4) positions:

- OFF** - All gas to the gas logs is shut off at the valve.
- IGN** - Valve position to light/maintain a standing pilot.
- ON** - Valve position to turn ON/OFF log set with remote switch/thermostat.
- LOW/HI** - Variable position to control flame height (heat output). Both front and rear burners are in operation to provide realistic glow and yellow flame.

PILOT

The gas log heater is fitted with a specially designed safety pilot light which senses the amount of oxygen available in the room and shuts the gas log heater off if the oxygen level begins to drop below a satisfactory level. The pilot can only be relit when adequate fresh air is available.

THERMAL GENERATOR

The milli-volt gas log pilot is fitted with a milli-volt generator to provide power for remote activation.

GETTING STARTED

Make sure you have received all parts:

Check your packing list to verify that all listed parts have been received. You should have the following:

- Unvented gas heater
- Two (2) 90°-angle brackets
- Trim kit
- Installation/operating instructions
- Canopy and three (3) screws
- Two (2) anchoring screws
- Ceramic fiber logs
- Four (4) black screws

Millivolt controlled heater designed to be operated with optional devices for ON/OFF functions.

- Hand held Remote with receiver
- Wall T-stat with 20' wire
- Wall switch with 20' wire
- Hand held Thermostat Remote w/receiver

CAUTION

- **Handle the gas log burner assembly by the grate only. Do not pick the unit up by the burners.**
- **Gloves are recommended when handling ceramic fiber logs to prevent skin irritation from loose fibers. Logs are fragile — handle with care.**

Carefully inspect the contents for shipping damage. If any parts are missing or damaged, immediately inform the dealer from whom you purchased the appliance. **Do not attempt to install any part of the appliance unless you have all parts in good condition.**

What you will need for installation:

You must have the following items available before proceeding with installation:

- External regulator (for propane/LPG only)
- Manual shutoff valve
- Piping which complies with local codes
- Sediment trap
- Phillips head screwdriver
- Tee joint.
- Pipe sealant approved for use with propane/LPG
- Pipe wrench
- (Resistant to sulfur compounds)

GENERAL INSTALLATION INFORMATION

In planning the installation for the fireplace it is necessary to determine where the unit is to be installed and whether optional accessories are desired. Gas supply piping should also be planned. The following steps represent the normal sequence of installation. Each installation is unique, however, and might require a different sequence.

1. Position fireplace in desired location. See the *Location of Fireplace* and *Clearances and Height Requirements*, and *Firebox Framing* sections found in this manual.

Note: Be sure all packing material has been removed from underside the unit.

2. Install canopy and logs per instructions found in this manual. The canopy **MUST** be installed for safe operation of the unit.
3. Field wire main power supply to units with fan kit. See the *Electrical Section* found in this manual. (Electrical connections should only be performed by an experienced, licensed certified tradesman).
4. Install optional ON/OFF kit on units with millivolt control. See installation instructions included with the kit and also See the *Electrical Wiring* section found in this manual.
5. Plumb gas line. See the *Connecting the Gas* section found in this manual. (Gas connections should only be performed by an experienced, licensed/certified tradesman).
6. Complete finish wall material and/or surround.

| | 24VFSC/24DBXC | 32VFSC |
|---|--------------------------------|--------------------------------|
| A | 14 | 21 ³ / ₄ |
| B | 13 ¹ / ₈ | 17 ¹ / ₂ |
| C | 11 ⁷ / ₈ | 13 ³ / ₈ |
| D | 9 | 10 ⁵ / ₈ |
| E | 21 | 27 |
| F | 4 ⁷ / ₈ | 5 |
| G | 17 | 20 ¹ / ₄ |
| H | 1 | 1 ⁵ / ₈ |
| I | 22 ¹ / ₂ | 28 ³ / ₄ |
| J | 1 | 1 ⁵ / ₈ |
| K | 24 ¹ / ₂ | 32 |
| L | 4 ⁵ / ₈ | 4 ³ / ₄ |
| M | 10 ¹ / ₂ | 12 |
| N | 26 ¹ / ₂ | 30 |

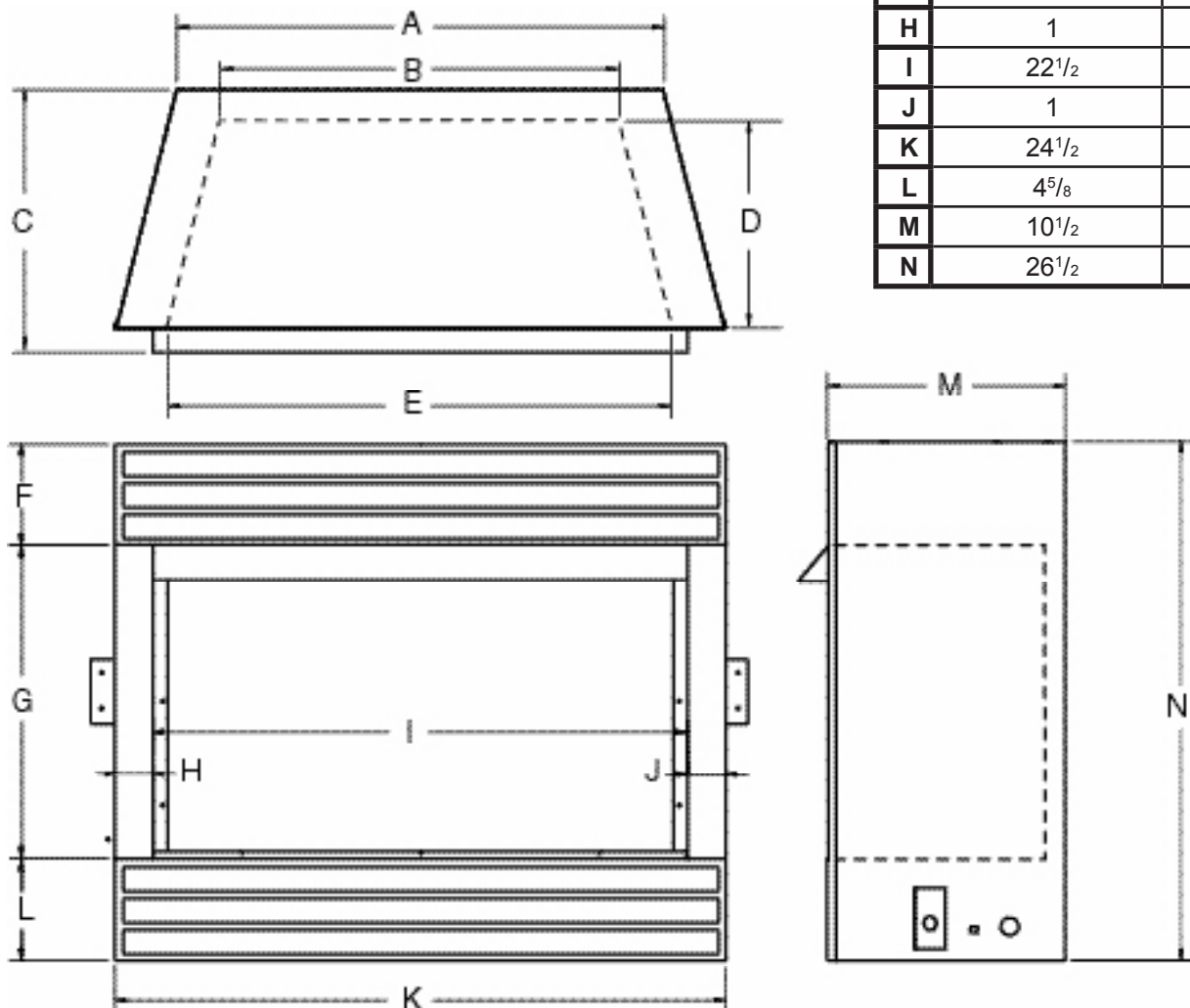


Figure 2 - Firebox Dimensions with Screen and Log Sets Removed

CODES

Adhere to all local codes or, in their absence, the latest edition of THE NATIONAL FUEL GAS CODE ANSI Z223.1 or NFPA54 which can be obtained from...

American National Standards Institute, Inc.

1430 Broadway
New York, NY 10018

or

National Fire Protection Association, Inc.

Batterymarch Park
Quincy, MA 02269

WARNING

Do not install the heater

- **where curtains, furniture, clothing, or other flammable objects are less than 42" from the front of the heater.**
- **in high traffic areas.**
- **in windy or drafty areas.**

ADEQUATE COMBUSTION AND VENTILATION AIR

This heater shall not be installed in a confined space or unusually tight construction unless provisions are provided for adequate combustion and ventilation air.

The National Fuel Gas Code defines a confined space as a space whose volume is less than 50 cubic feet per 1,000 BTU per hour (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space. An unconfined space is defined as a space whose volume is not less than 50 cubic feet per 1,000 BTU per hour (4.8 m³ per kw) of the aggregate input rating of all appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

UNUSUALLY TIGHT CONSTRUCTION IS DEFINED AS CONSTRUCTION WHERE...

- a) walls and ceilings exposed to the outside atmosphere have a continuous water vapor retarder with a rating of 1 perm (6 x 10¹¹ kg per-pa-sec-m²) or less with openings gasketed or sealed, and
- b) weather striping has been added on openable windows and doors, and
- c) caulking or sealant are applied to areas such as joints around windows and door frames; between sole plates and doors; between wall-ceiling joints; between wall panels; at penetrations for plumbing, electrical, and gas lines; and at other openings.

GENERAL INSTALLATION INFORMATION

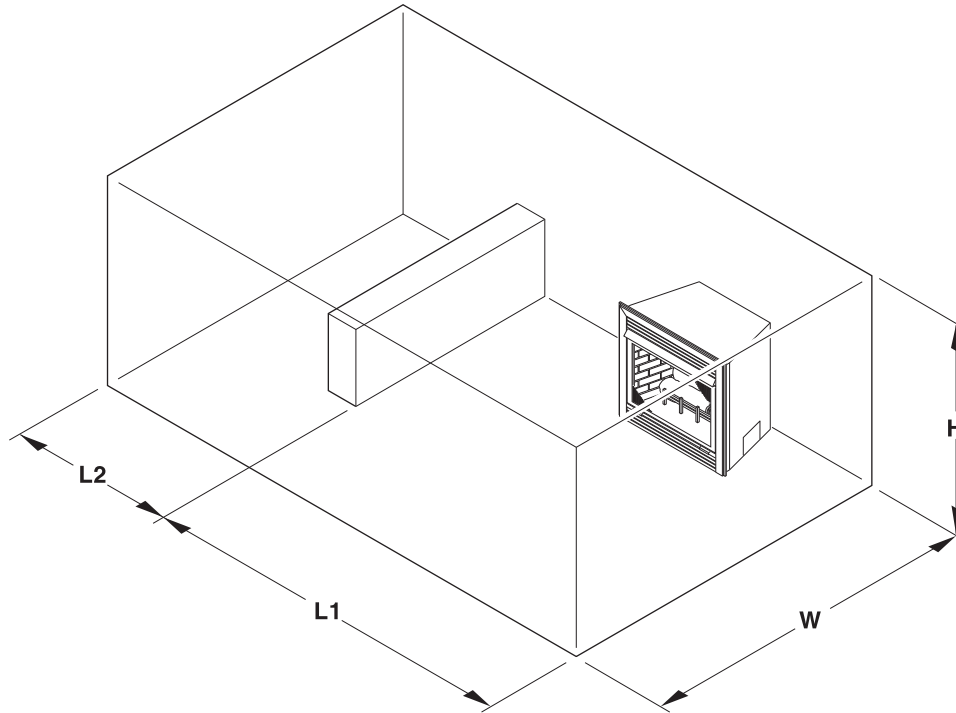


Figure 3 - Sample Room for Determining the Maximum Heater Rating

The following formula can be used to determine the maximum heater rating per the definition of unconfined space:

$$\text{BTU/Hr} = \frac{(\text{L1} + \text{L2}) \text{ Ft} \times (\text{W}) \text{ Ft} \times (\text{H}) \text{ Ft.}}{50} \times 1000 \quad \text{BTU/Hr}$$

Consider two connecting rooms with an open area between, with the following dimensions:

$$\text{L1} = 15\frac{1}{2} \text{ Ft.}, \text{L2} = 12 \text{ Ft.}, \text{W} = 12 \text{ Ft.}, \text{H} = 8 \text{ Ft.}$$

$$\text{BTU/Hr} = \frac{(15\frac{1}{2} + 12) \times (12) \times (8)}{50} \times 1000 = 52800 \quad \text{BTU/Hr}$$

If there were a door between the two rooms the calculation would be based only on the room with the heater.

$$\text{BTU/Hr} = \frac{(15\frac{1}{2}) \times (12) \times (8)}{50} \times 1000 = 29760 \quad \text{BTU/Hr}$$

WARNING

If the area in which the heater may be operated is smaller than that defined as an unconfined space or if the building is of unusually tight construction, provide adequate combustion and ventilation air by one of the methods described in the National Fuel Gas Code, ANSI Z223.1, 1992, Section 5.3 or applicable local codes.

INSTALLING OPTIONAL FIREBRICK PANELS

1. Remove optional firebrick panels from packaging. Check to See that you have the following:

• 3 firebrick panels • two (2) retainer brackets • two (2) black screws

If any part or parts are missing, contact dealer where you bought fireplace.

2. Turn off fireplace and allow to cool.
3. Remove fireplace screen (See *Figure 14, page 14*) and logs.
4. Place rear firebrick panel on back wall of firebox. Set bottom of panel behind the bracket tabs of the grate. See *Figure 4*.
5. Place one of the side firebrick panels in cabinet. Line up the hole in the retainer clip with the hole inside the firebox. Using Phillips screwdriver, attach the retainer bracket to inside of firebox. See *Figure 5*.
6. Repeat step five for the other firebrick side panel.

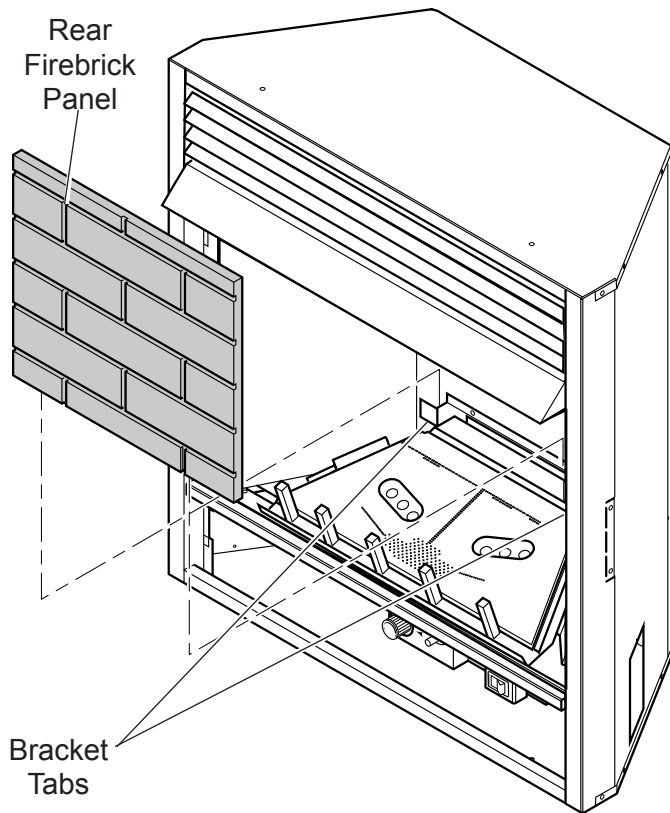


Figure 4 - Installing Back Firebrick Panel

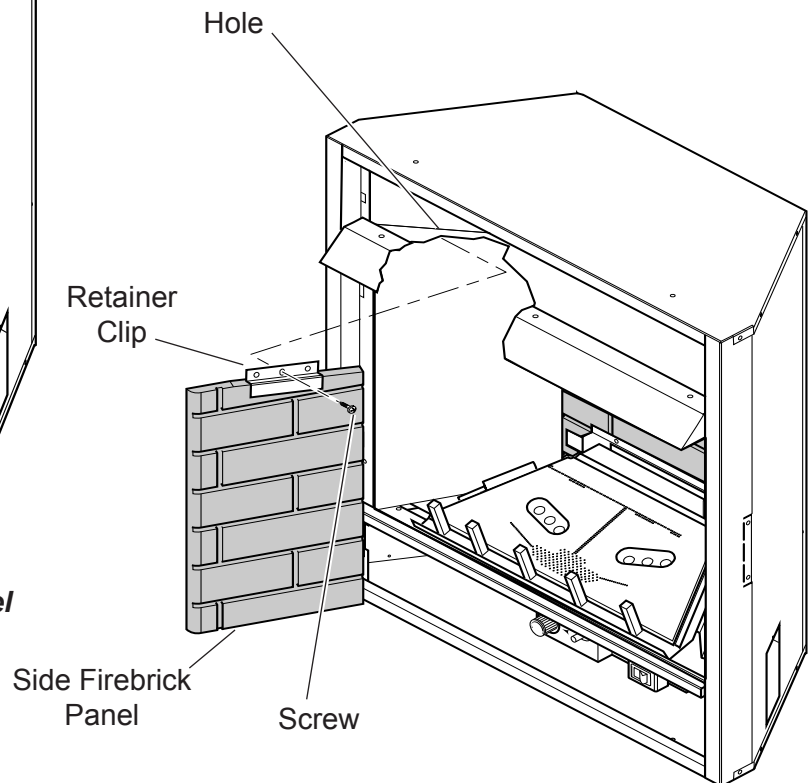


Figure 5 - Installing Side Firebrick Panel

GENERAL INSTALLATION INFORMATION

BLACK TRIM INSTALLATION (24VFSC/24DBXC)

1. Remove black trim from protective packaging. Remove four (4) black screws and 2 (two) 90°-angle trim brackets from owner's manual packaging.
2. Lay trim on floor and match corners of side trims to top trim (See Figure 6).
3. Use one 90°-angle trim bracket to join the corner of one piece of side trim to the corner of the top trim piece (See Figure 6). A rubber hammer or handle of a claw hammer will help secure the corners.
4. Repeat for other side.

NOTE: If you do not attach the trim at the correct corners, use a hammer and screwdriver to tap on the one end of the 90°-angle bracket. This will separate the two pieces of trim (See Figure 8).

5. Place assembled black trim on front of heater. Using four (4) black screws, secure black trim to sides of heater (See Figure 8).

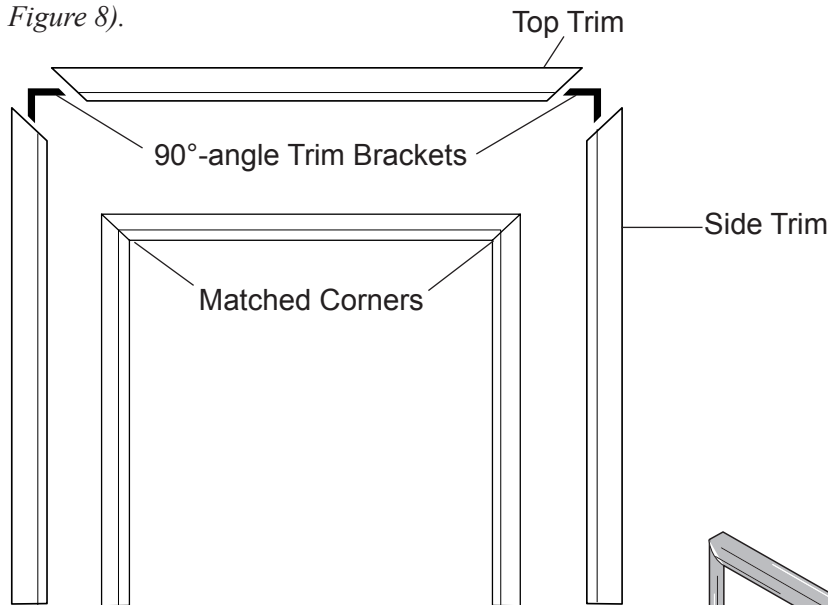


Figure 6 - Matching and Joining Corners of Black Trim with 90°-angle Trim Brackets

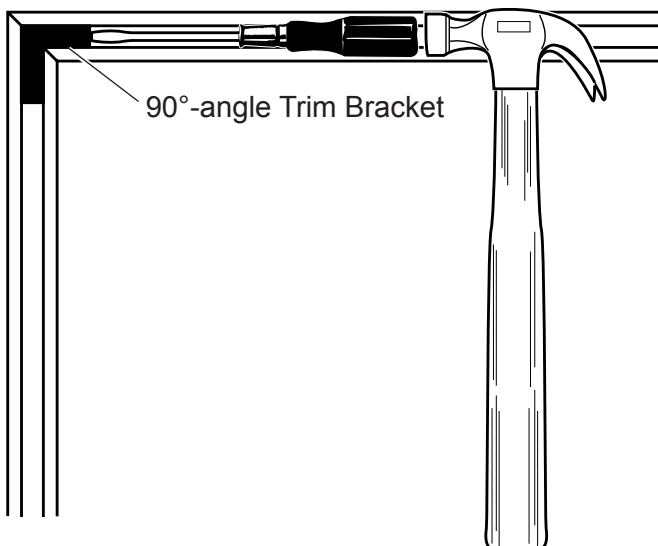


Figure 7 - Removing the 90°-angled Trim Bracket

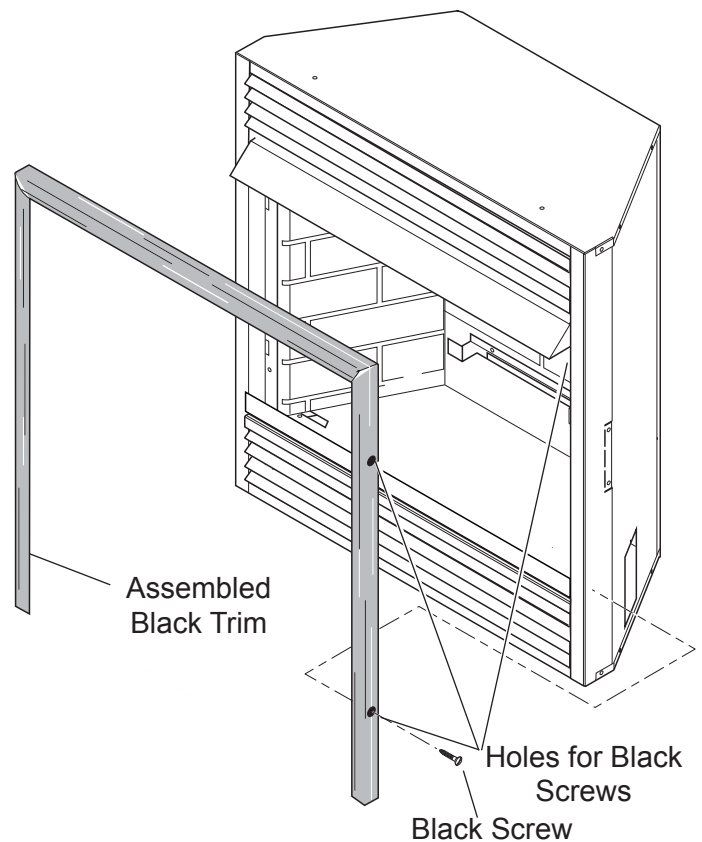


Figure 8 - Attaching Assembled Black Trim to Heater

GENERAL INSTALLATION INFORMATION

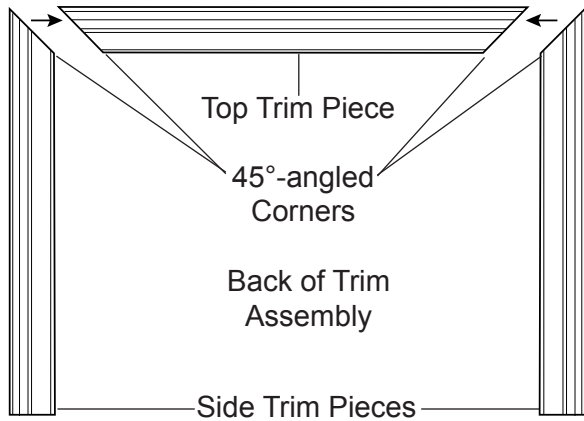


Figure 9 - Lining Up Corners of Trim Kit

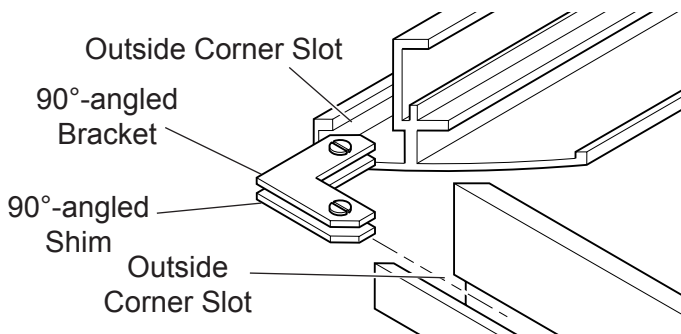


Figure 10 - Securing Corners Together

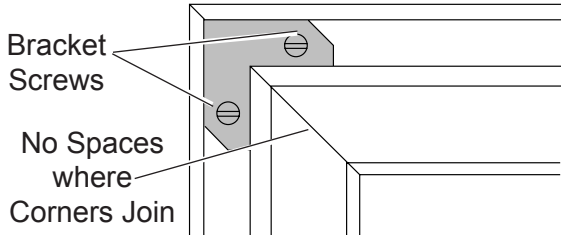


Figure 11 - Making Sure Corners Are Flush

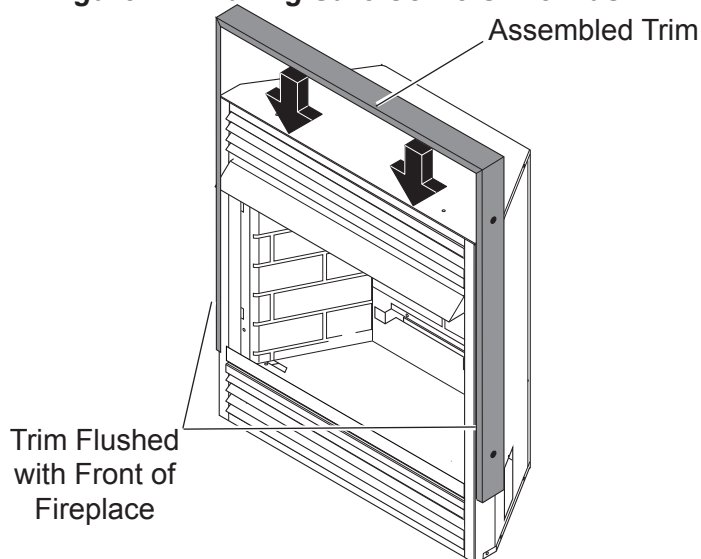


Figure 12 - Sliding Assembled Trim Over the Top of the Heater

BLACK TRIM INSTALLATION (32VFSC)

1. Remove trim from protective packaging. Be careful not to scratch the trim. Remove two (2) 90°-angled mounting brackets and two (2) 90°-angled shims.
2. Lay trim face down on the floor. Line up the 45°-angled corners of the top trim with the 45°-angled corners of the side trims.

Note: Both ends of the top piece of trim are mitered. See Figure 9.

3. Slide one (1) 90°-angled bracket (with attached screws) and one (1) 90°-angled shim in the outside corner slot where the top and side trims meet. See Figure 10.
4. Hold the corners together securely. Tighten screws on bracket with flat head screwdriver. Make sure the corners are flush and there are no spaces. **Do not over tighten screws.** See Figure 11.
5. Repeat for other side trim.
6. Slide assembled trim over the top and down the sides of the fireplace. Flush trim with front of fireplace as shown in Figure 12.
7. Align holes in assembled trim with holes in side of fireplace. Using a Phillips screwdriver, attach trim with four (4) screws provided — two for each side of fireplace. Tighten snugly. See Figure 13.

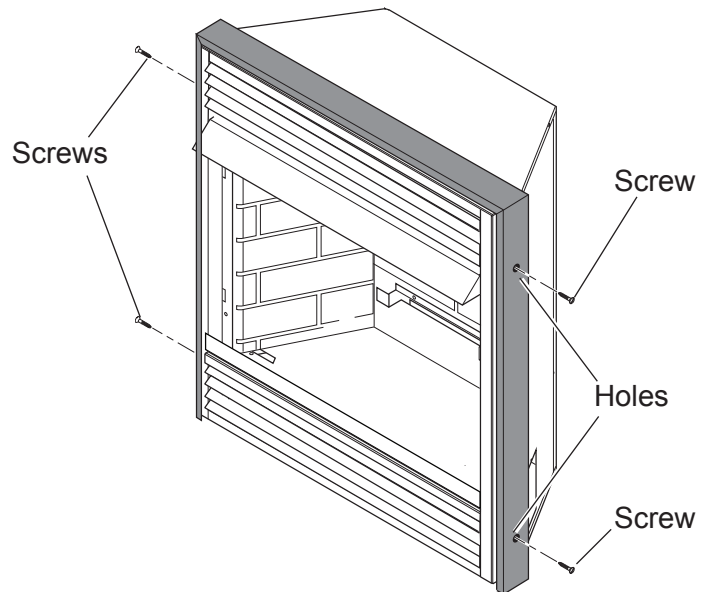


Figure 13 - Securing Trim to Heater with Four (4) Screws Provided

GENERAL INSTALLATION INFORMATION

REMOVING SCREEN

1. Remove bottom louver. *See Figure 14.*
2. Removing fireplace screen frame panel by pushing screen frame panel up and out. *See Figure 14.*

WARNING

Do not operate the unit without the screen frame panel and canopy installed.

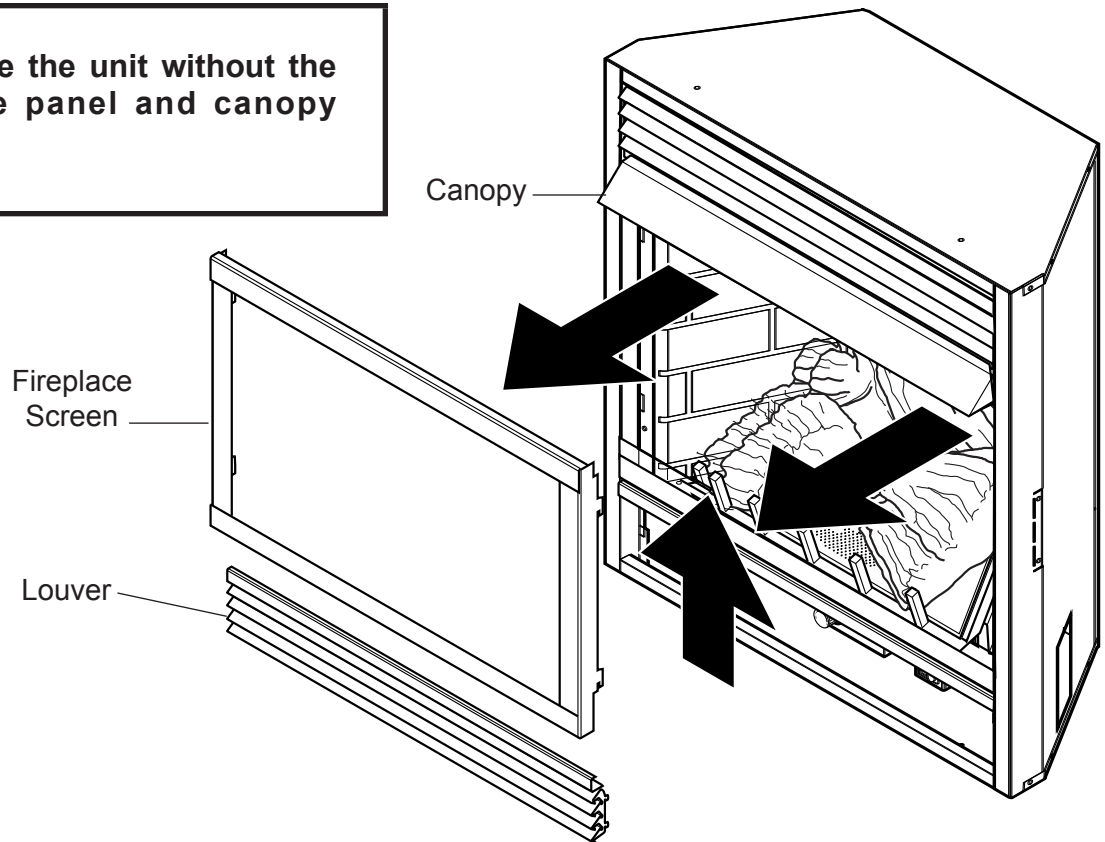


Figure 14 - Removing Fireplace Screen Frame Panel

NOTE: Fireplace screen must be removed to access log box and to install canopy.

INSTALLING CANOPY

1. Push louvers up and out to remove top louver assembly.
2. Align the black canopy with the holes in the top frame assembly. *See Figure 15.*
3. Install the three (3) screws (in owner's manual packaging) which attach the canopy to the top frame assembly. *See Figure 15.*
4. Tighten all screws. Make sure the canopy is level and secure. Install top louver assembly.

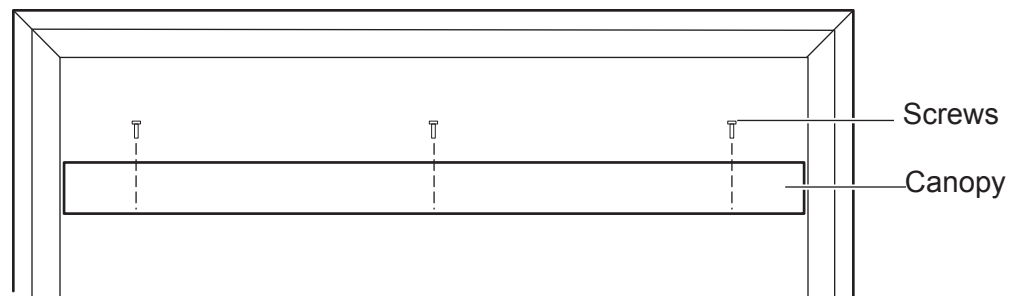


Figure 15 - Canopy Installation

SECURING HEATER TO FLOOR OR HEARTH

Note: Clearance requirements as detailed in “CLEARANCES and HEIGHT REQUIREMENTS” section on page 17 of this manual, must be met before securing the heater in place.

To prevent movement, the heater must be secured to the floor or hearth.

1. Open the control access door and remove the screen.
2. Remove carton containing the four-log set.
3. To remove the grate and base assembly, take out two (2) screws as shown in *Figure 16*.
4. Lift grate and base assembly out of the firebox.
5. Secure the firebox with two anchoring screws ($\frac{3}{16}$ " x $1\frac{1}{4}$ " length) supplied with the fireplace system. See *Figure 17*.

Note: If the unit is mounted on carpeting, tile or combustible material without the hearth, a metal or wooden base covering the entire width and depth of the base must be installed.

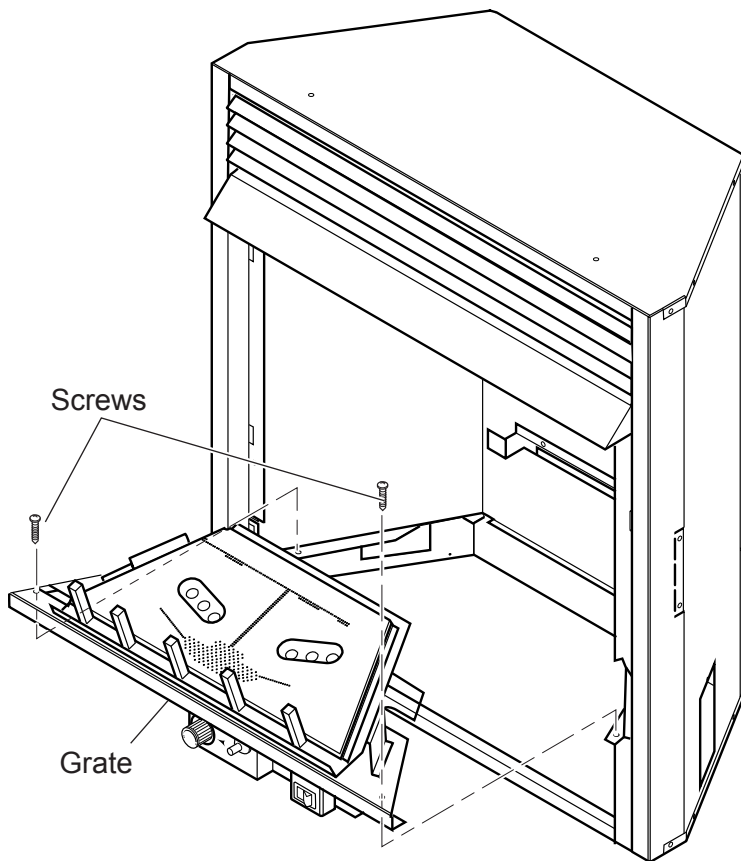
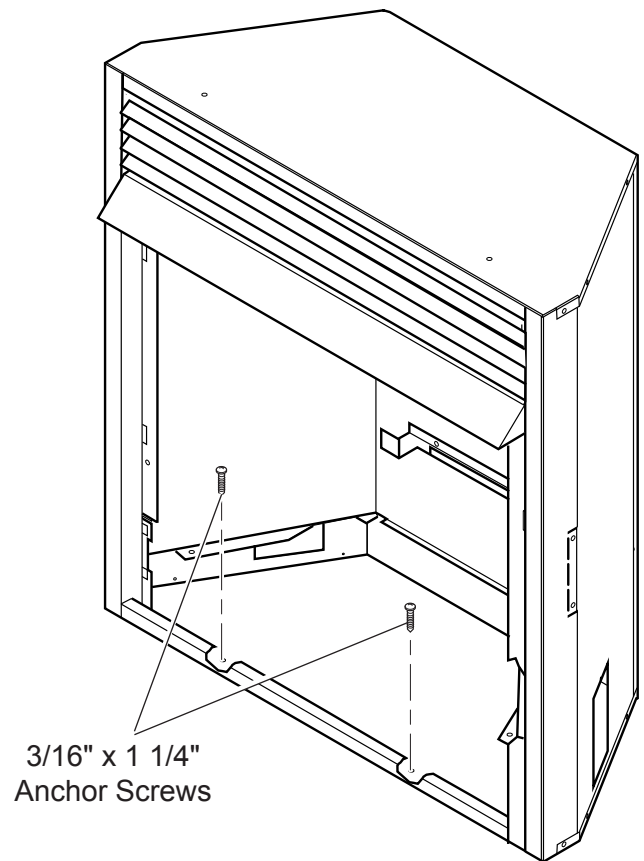


Figure 16 - Removing Grate



**Figure 17 - Securing Heater to Floor or
Hearth**

LOCATION OF FIREPLACE

Carefully select the best location for installation of your unvented fireplace. The following factors should be taken into consideration.

- Clearance to side wall, ceiling, woodwork and window or other combustibles. See *Clearances* and *Height Requirements* section on *page 17*. Minimum clearances to combustibles **must be maintained**.
- Location must not be affected by drafts caused by kitchen exhaust fans, ceiling fans, return air registers for forced air furnaces/air conditioners, windows or doors.
- Installation must provide adequate ventilation and combustion air.
- **DO NOT INSTALL THE VFS MODEL IN A BEDROOM OR BATHROOM. THE DBX MODEL MAY BE INSTALLED IN A BEDROOM, BUT NOT IN A BATHROOM.**
- Location should be out of high traffic areas and away from furniture and draperies due to heat from firebox.
- Never obstruct the front opening of the unvented fireplace or restrict the flow of combustion and ventilation air.
- Minimize modifications to existing construction. See *Figure 18* below for location suggestions.
- Do not install in the vicinity where gasoline or other flammable liquids may be stored. The unvented firebox must be kept clear and free from the combustible materials.

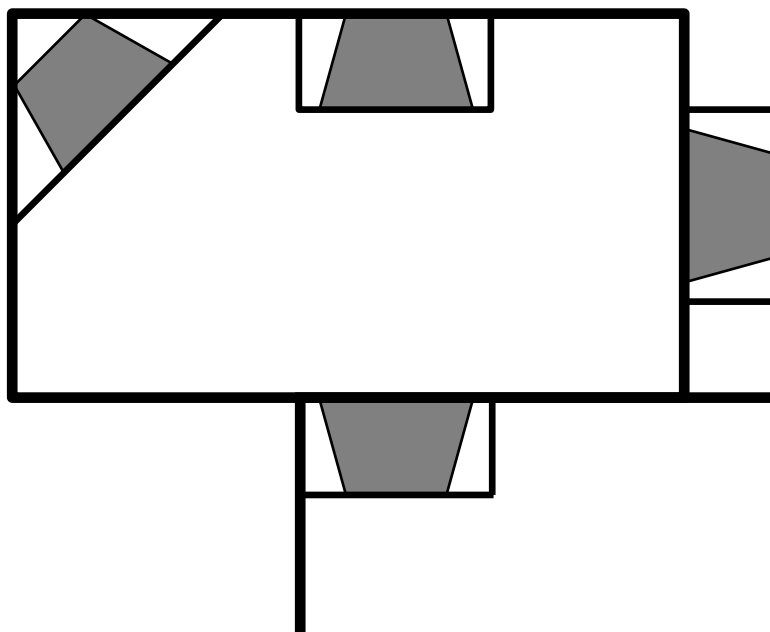


Figure 18 - Suggested Locations

CLEARANCES and HEIGHT REQUIREMENTS

Ensure that minimum clearances shown in *Figures 14 and 15* are maintained. Left and right clearances are determined when facing the front of the firebox.

Follow these instructions carefully to ensure safe installation. Failure to follow these requirements may create a fire hazard.

1. **Sidewall Clearances** — The clearance from the inside of the appliance to any combustible adjacent wall should not be less than 9" for the 24DBXC/24VFSC and 32VFSC. See *Figure 19*.
2. **Ceiling Clearance** — The ceiling must be at least 42" from the top of the firebox opening. See *Figures 19 and 20*.
3. **Back Wall Clearance** — The appliance may be placed against a combustible back wall.
4. **Floor Clearance** — The fireplace may not be installed onto any combustible flooring material, such as carpeting, vinyl or tile without the hearth or a min. 22 Ga (0.030") metal or a minimum 1/2" wooden base covering the entire width and depth of the base. Combustible material must be installed at least 1" away from the front face of the unit.
5. **Mantel clearances** — The canopy supplied with the unit must be installed. If a combustible mantel is installed. It must meet the clearance requirements detailed in *Figure 20*.

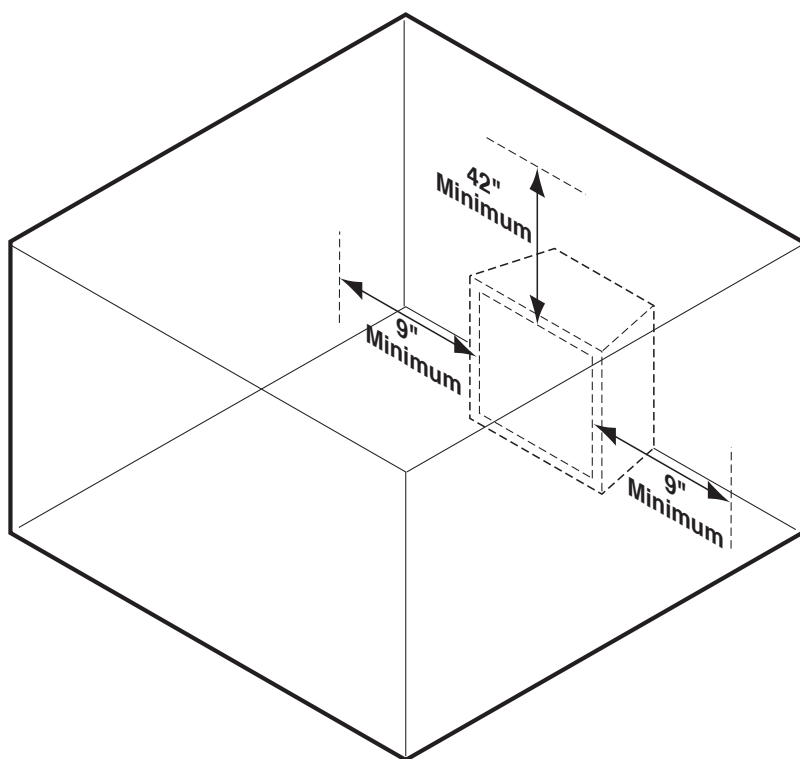


Figure 19 - Clearances and Height Requirements for 24VFSC/24DBXC/VFS32

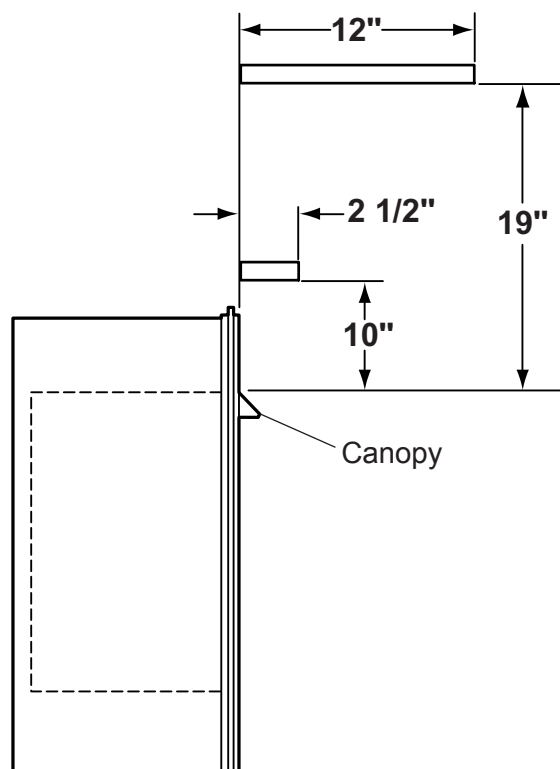


Figure 20 - Minimum Mantel Clearances

WARNING

The dimensions shown in *Figures 19 and 20* are minimum clearances to maintain in installing this heater. Left and right clearances are determined when facing the front of the heater.

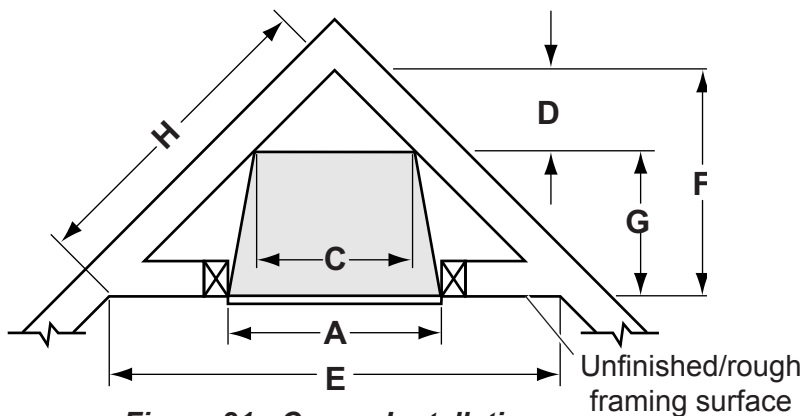
Follow these instructions carefully to ensure safe installation. Failure to follow instructions exactly can create a fire hazard.

FIREPLACE FRAMING

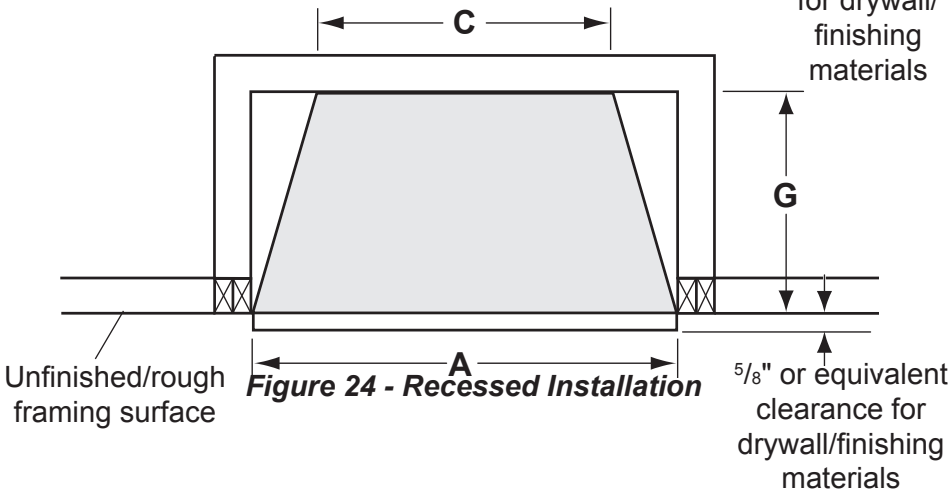
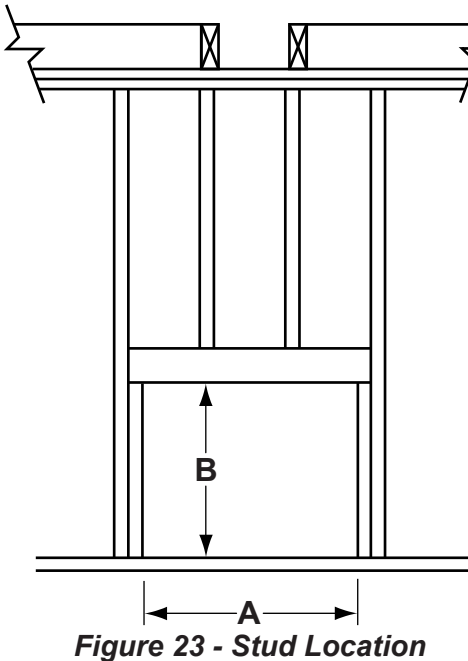
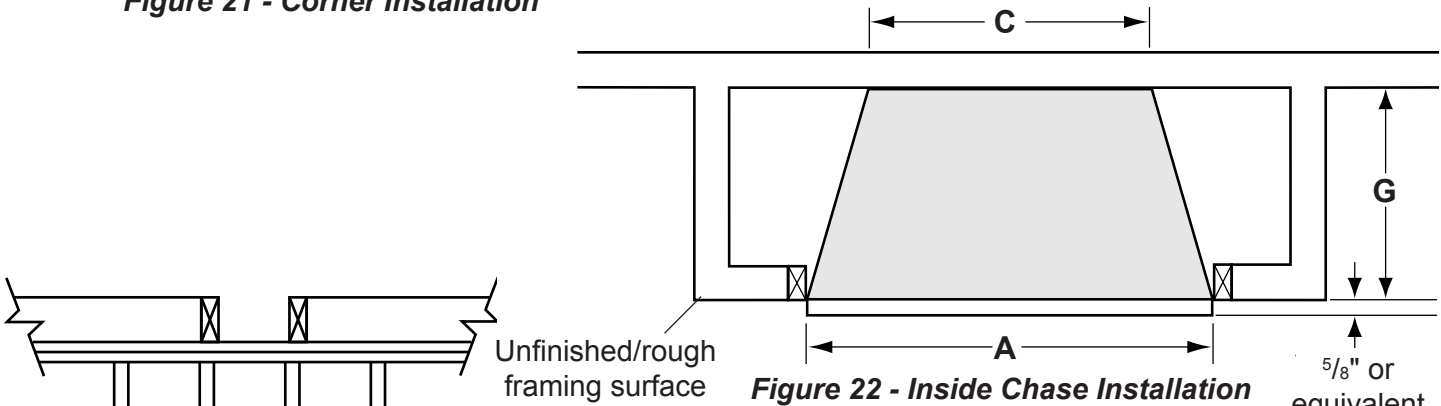
If unit is to be “built in”, fireplace framing can be built before or after the appliance is set in place. **BE SURE THAT ALL PACKING MATERIAL HAS BEEN REMOVED FROM THE UNDERSIDE OF THE UNIT PRIOR TO SETTING THE FIREBOX IN PLACE.** Construct fireplace framing following *Figures 21 through 24*. See *Figure 2 on page 8* for fireplace dimensions. The framing headers may rest directly on top of the firebox.

The fireplace may be installed directly on a combustible floor or a raised platform of an appropriate height. Do not place fireplace on carpeting, vinyl, tile or other soft floor coverings. It may, however, be placed on flat wood, plywood, particle board or other hard surfaces. Be sure fireplace rests on a solid continuous floor or platform with appropriate framing for support and so that no cold air can enter from under the firebox.

Anchor fireplace to the side framing members using nailing flanges.



| | 24VFSC | 24DBXC | 32VFSC |
|---|--------------------------------|--------------------------------|--------------------------------|
| A | 24 ³ / ₄ | 24 ³ / ₄ | 32 ¹ / ₂ |
| B | 26 ³ / ₄ | 26 ³ / ₄ | 30 ¹ / ₄ |
| C | 14 | 14 | 21 ³ / ₄ |
| D | 10 ¹ / ₂ | 10 ¹ / ₂ | 14 ¹ / ₂ |
| E | 42 ¹ / ₂ | 42 ¹ / ₂ | 53 ³ / ₄ |
| F | 21 | 21 | 26 ³ / ₄ |
| G | 10 ¹ / ₂ | 10 ¹ / ₂ | 12 ¹ / ₄ |
| H | 30 | 30 | 38 |



When finishing a custom cabinet, mantel, or other built-in enclosure, the opening size to accommodate the fireplace with trim installed is as follows:

| | 24VFSC w/ trim | 24DBXC w/ trim | 32VFSC w/trim |
|---|----------------------------------|----------------------------------|------------------------------------|
| H | 25 " | 25" | 32 ¹³ / ₁₆ " |
| J | 26 ³ / ₄ " | 26 ³ / ₄ " | 31 ¹ / ₄ " |

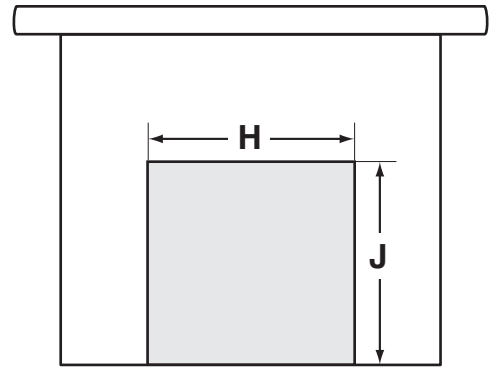


Figure 25 - Custom Cabinet

WARNING

The fireplace must be installed giving full consideration to the clearance and height requirements identified in this manual.

1. Bend out the nailing flanges located on each side of the firebox.
2. Slide the firebox into prepared framing or position firebox in its final position and frame later.
3. Level the firebox by checking the top edge of the firebox. Shim if necessary.
4. Anchor firebox to the side framing members using 8d nails or other suitable fasteners. *See Figure 26.*
5. The canopy must be installed for safe operation of the heater. *See page 14* for canopy installation details.

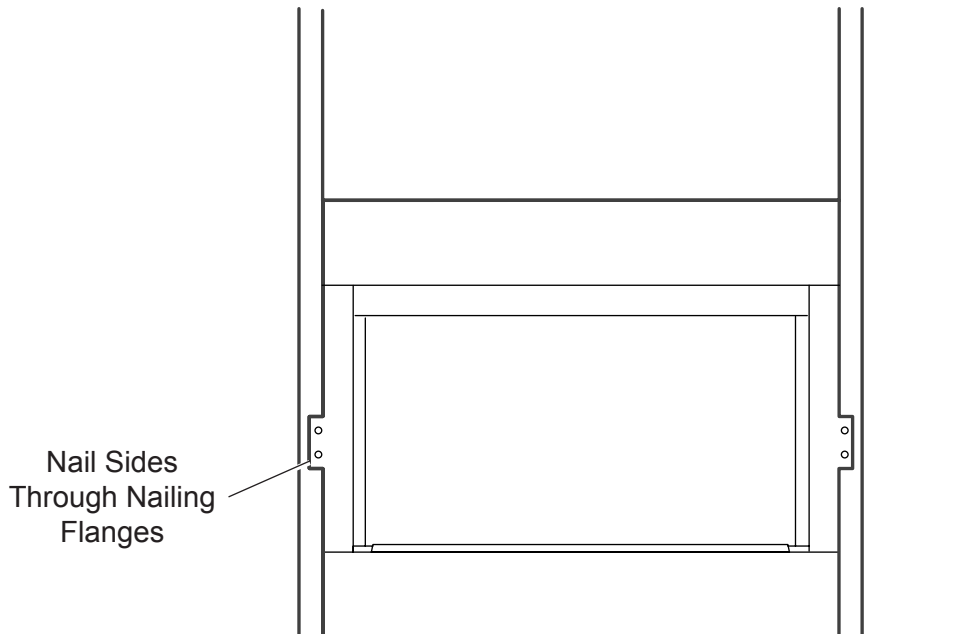


Figure 26 - Location of Nailing Flanges

CONNECTING THE GAS

NOTICE: A qualified gas appliance installer must connect the heater to the gas supply. Consult all local codes.

CAUTION

Use new black iron pipe, steel pipe, copper tubing or internally tinned copper tubing. Internally tinned copper tubing can only be used per National Fuel Code, section 2.6.3, providing gas meets sulfide limits, and where permitted by local codes. Gas piping system must be sized to provide minimum inlet pressure (listed on Data Plate) at the maximum flow rate (BTU/Hr). Undue pressure loss will occur if the pipe is too small.

A manual shutoff valve must be installed upstream of the appliance. Union tee and plugged 1/8" NPT pressure tapping point should be installed upstream of the appliance. See Figure 27.

A sediment trap should be installed upstream to prevent moisture and contaminants from passing through the pipe to appliance controls and burners. Failure to do so could prevent the appliance from operating reliably. See Figure 27.

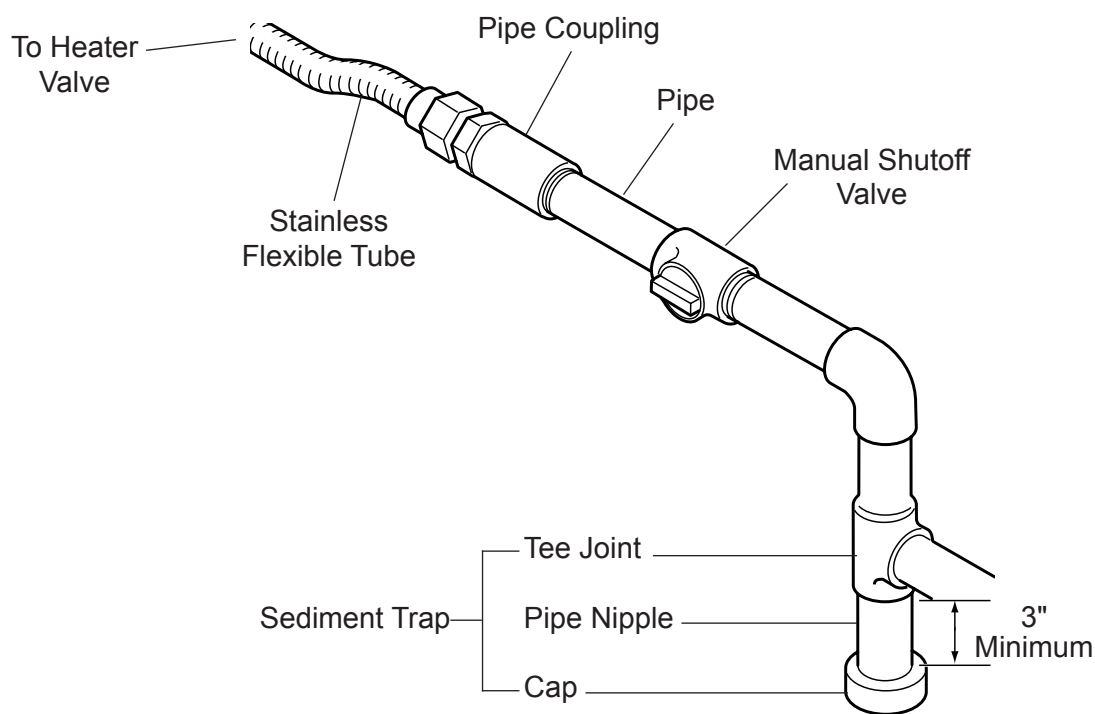


Figure 27 - Gas Connection

IMPORTANT: Loosen the pipe adapter on the flex tube before installing to the system piping.

CHECK GAS TYPE: The gas supply must be the same as stated on the heater's rating plate. If the gas supply is different, **DO NOT INSTALL THE HEATER.** Contact your dealer for the correct model.

Always use an external regulator for all propane/LPG heaters only, to reduce the supply tank pressure to a maximum of 13" w.c. This is in addition to the internal regulator in the heater valve.

WARNING

Connecting directly to an unregulated propane/LPG tank can cause an explosion.

Test all gas joints from the gas meter to the heater valve for leaks using a gas analyzer or soap and water solution after completing connection. **DO NOT USE AN OPEN FLAME.**

Check the gas pressure with the appliance burning and the control set to **HIGH**.

Open control access door at bottom front of unit to find valve and regulator referred to below.

MANUAL CONTROL (Figure 28)

The pressure regulator is preset and locked to discourage tampering. If the pressure is not as specified, replace the regulator with the correct part from the parts list in this manual.

Remove 1/8" NPT plug, located on side of regulator body. Install fitting and tubing to pressure gauge. After taking pressure reading, reinstall test plug. Check for gas leaks.

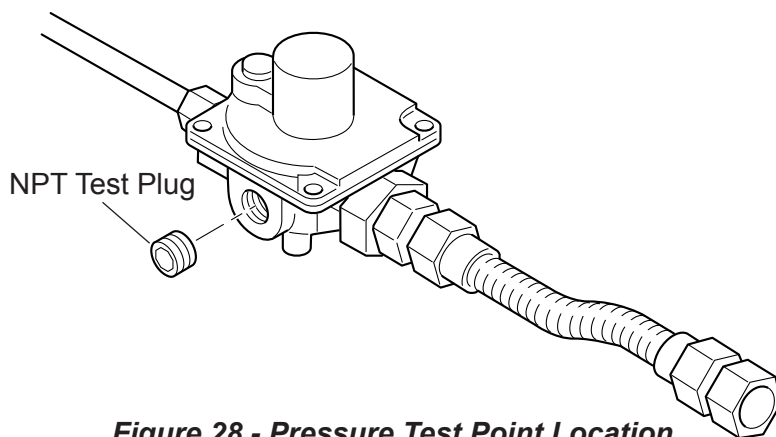


Figure 28 - Pressure Test Point Location

THERMOSTAT CONTROL (Figure 29)

Turn captured screw counter clockwise two or three turns and then place tubing to pressure gauge over test point (Use test point closest to control knob). After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check for gas leaks.

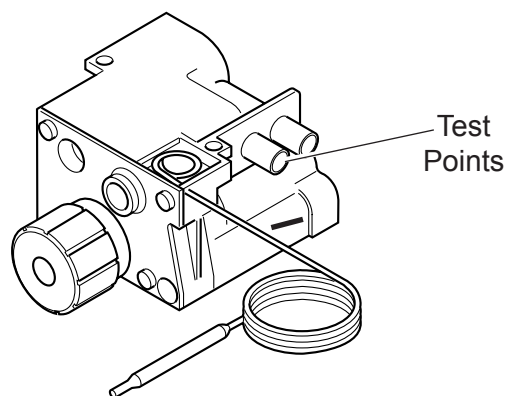


Figure 29 - Alternate Test Point Location for Thermostat Control Unit

MILLIVOLT CONTROL (Figure 30)

The valve regulator controls the burner pressure which should be checked at the pressure test point.

Turn captured screw counter clockwise two or three turns and then place tubing to pressure gauge over test point. (Use test point "A" closest to gas inlet). After taking pressure reading, be sure and turn captured screw clockwise firmly to reseal. Do not over torque. Check for gas leaks.

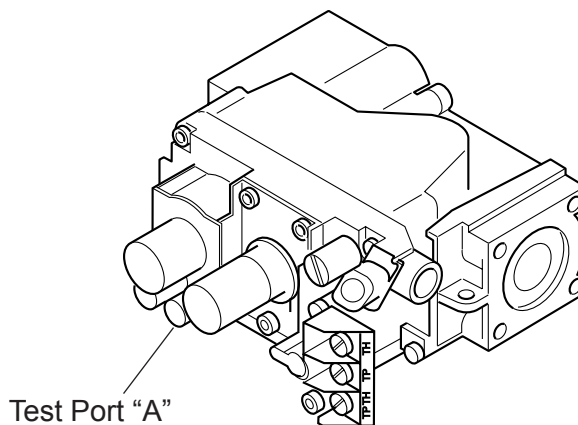
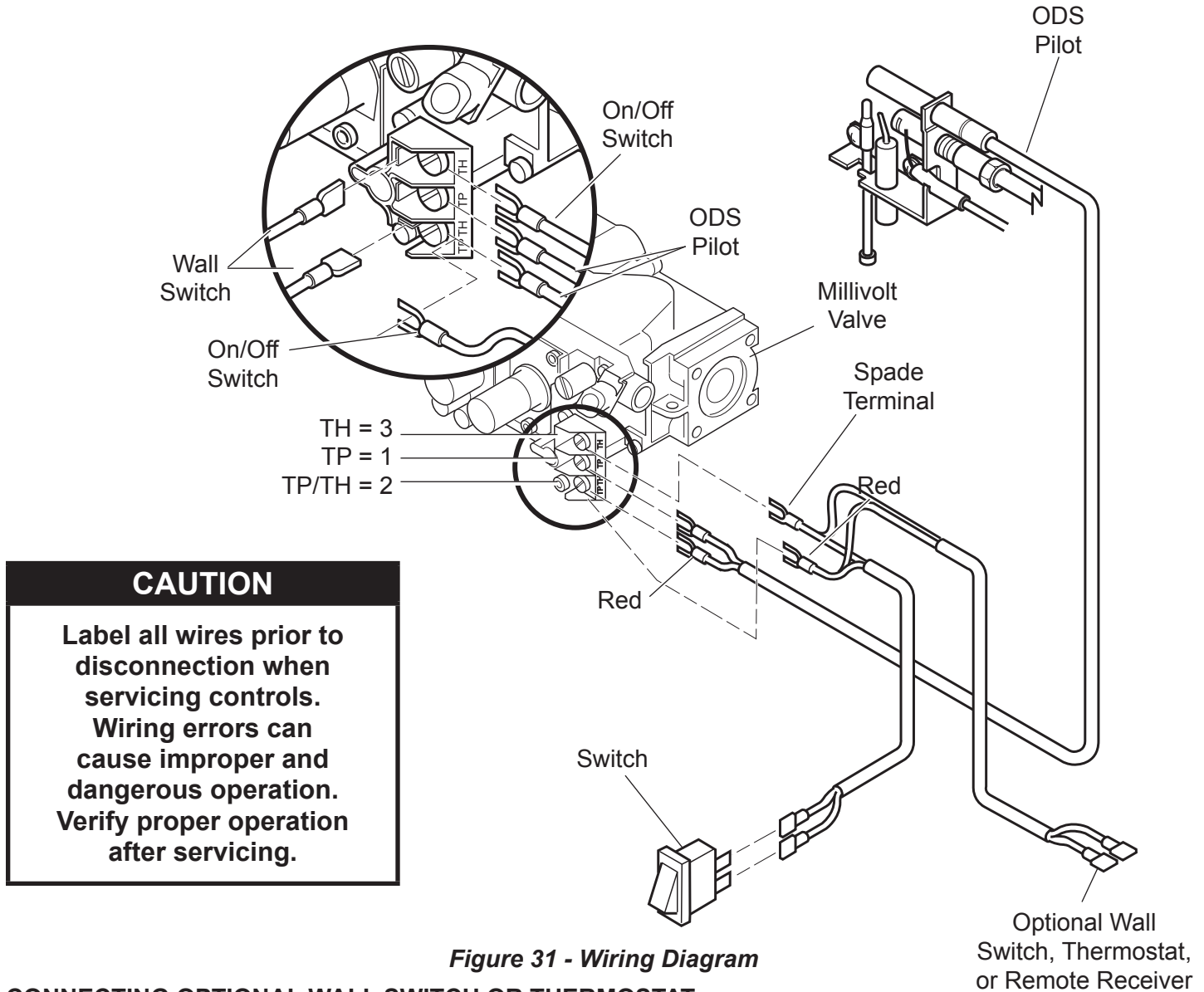


Figure 30 - Pressure Test Point Location

ELECTRICAL WIRING (MILLI-VOLT)

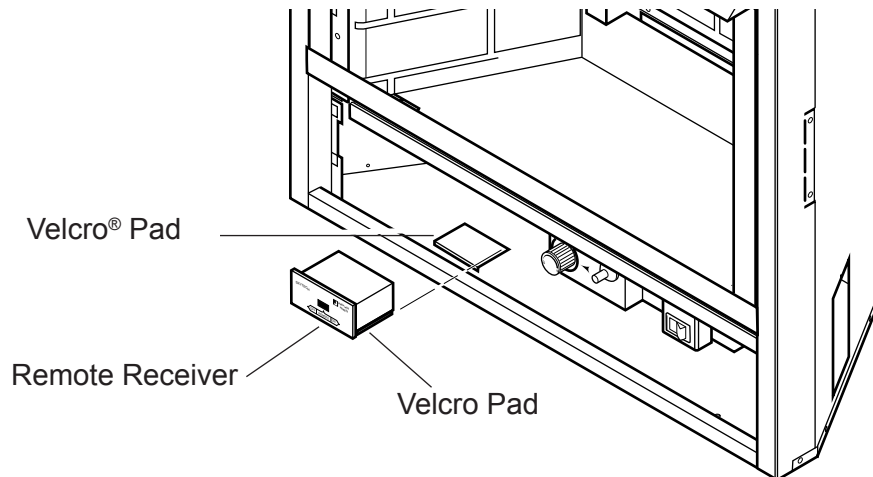
The milli-volt valve is a self-powered combination gas control **THAT DOES NOT REQUIRE 110 VAC TO OPERATE.**



CONNECTING REMOTE RECEIVER

THESE INSTRUCTIONS SUPERSEDE THE SECTION ENTITLED "HEARTH MOUNT" IN THE MILLI-VOLT HAND-HELD REMOTE INSTRUCTIONS SUPPLIED WITH THE REMOTE.

1. Remove bottom louver door.
2. Connect the remote connectors located in the unit.
3. Stick Velcro® pads with self-adhesive backing to bottom of remote receiver and to floor of compartment behind access panel.
4. Attach remote receiver to firebox with Velcro® pads. Control switch must face forward.



NOTICE

**Do not place
remote in
combustion
chamber.**

Figure 32 - Installing Remote Receiver

CHECKING SYSTEM OPERATION

The millivolt system and individual components may be checked with a millivolt meter having a 0-1000 mV range. Conduct each check shown in chart below by connection meter test leads to terminals as indicated.

| CHECK TEST | TO TEST | CONNECT METER LEADS TO TERMINALS | SWITCH OR THERMOSTAT CONTACTS | METER READING SHOULD BE |
|------------|-------------------|----------------------------------|-------------------------------|-------------------------|
| A | COMPLETE SYSTEM | 2 & 3 | CLOSED | CLOSED |
| B | THERMOPILE OUTPUT | 1 & 2 | OPEN | OPEN |

A. COMPLETE MILLIVOLT SYSTEM CHECK

("A" Reading - Thermostat contacts CLOSED - Control Knob "ON" - Main burner should be come ON)

- a. If the reading is more than 100 millivolts and the automatic valve still does not come on, replace the control.
- b. If the closed circuit reading ("A" reading) is less than 100 milli-volts, determine cause for low reading, proceed to Section B below.

B. Thermopile Output Reading Check

("B" Reading - Thermostat contacts OPEN - Main burner OFF)

1. Check gas pressure to the unit. If gas pressure is within minimum and maximum on data plate, then check pilot voltage, 325 millivolts minimum. If the minimum milli-volt reading is not obtainable, replace pilot.

LOG PLACEMENT

Before you begin — This unit is supplied with a set of three ceramic fiber logs. Do not handle these logs with your bare hands. Always wear gloves to prevent skin irritation from ceramic fibers. After handling logs, wash your hands gently with soap and water to remove any traces of fibers.

WARNING The positioning of the logs is critical to the safe and clean operation of this heater. Sooting and other problems may result if the logs are not properly and firmly positioned in the appliance. Never add additional logs or embellishments such as pine cones, vermiculite or rock wool to the heater.

WARNING Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this heater may result in property damage or personal injury.

CAUTION DO NOT sprinkle volcanic rock on the logs or around the pilot or the main burner. This may cause sooting. Only place volcanic rock on the floor of the fireplace. During initial operation of the new heater, burning logs will give off a paper burning smell and orange flames will be present. Simply open the windows for a few hours to vent the odor.

PROPER INSTALLATION SEQUENCE (24VFSC)

See *Figure 33*.

1. Install the **rear log (#3)** on back of burner.
2. Install the **right log (#1)** on burner pins on right side of burner.
3. Install the **left log (#2)** on burner pins on left side of burner.

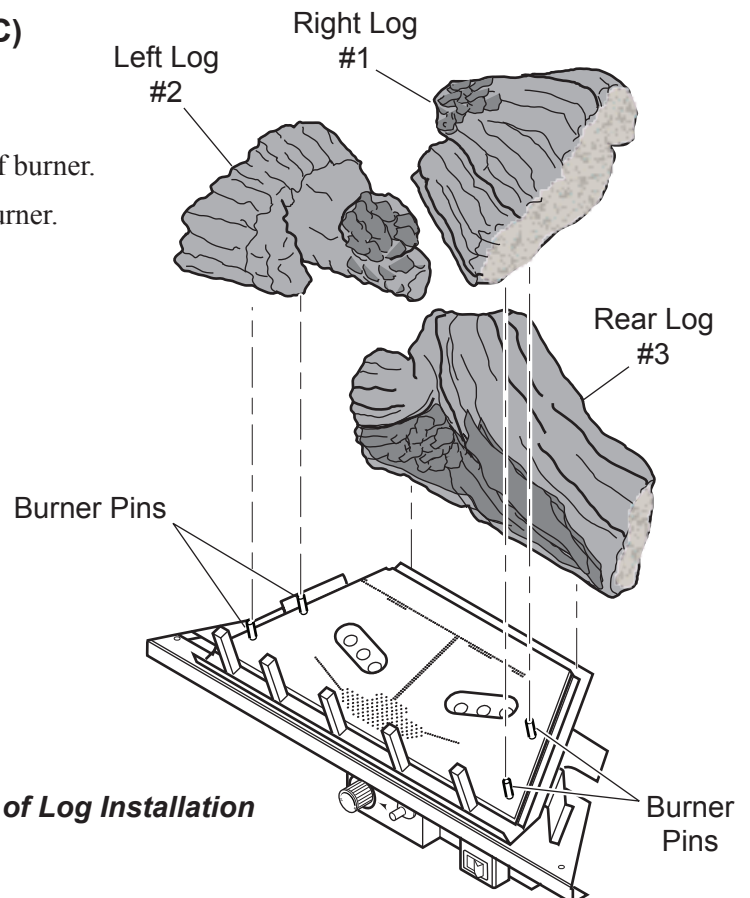


Figure 33 - Proper Sequence of Log Installation (24VFSC)

PROPER INSTALLATION SEQUENCE (32VFSC)

See Figure 34.

1. Install **front right log (#1)** on two pins on right side of burner.
2. Install **left front log (#2)** on two pins on left side of burner.
3. Install **back log (#3)** on back of burner.
4. Install **right middle log (#4)** on two pins on burner. Rest right end of right middle log on the right front log.
5. Install **left middle log (#5)** on two pins on burner. Rest left end of left middle log on left front log.

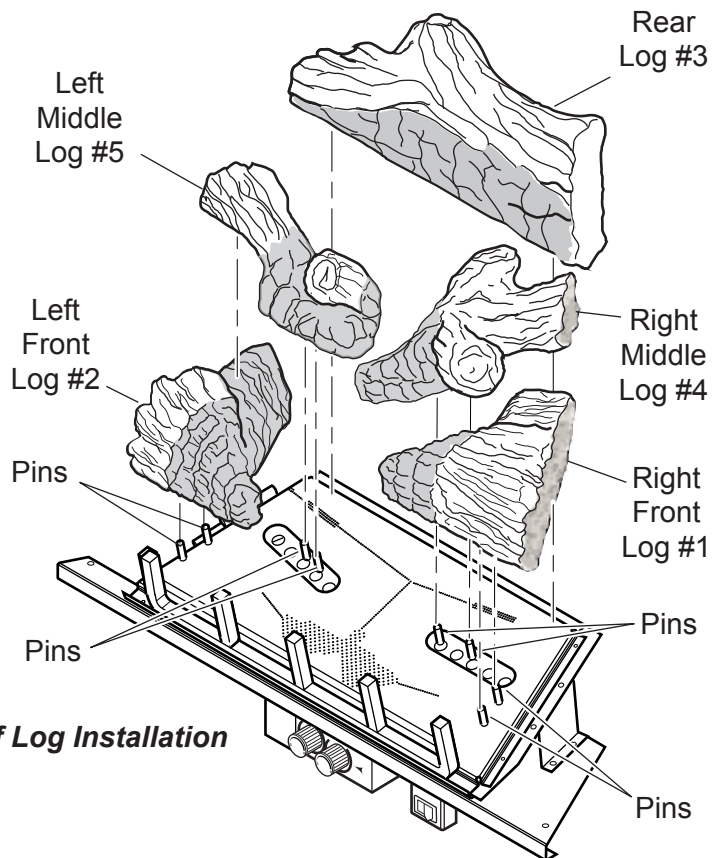


Figure 34 - Proper Sequence of Log Installation (32VFSC)

PROPER INSTALLATION SEQUENCE (24DBXC)

Install one-piece log on two burner pins. See Figure 35.

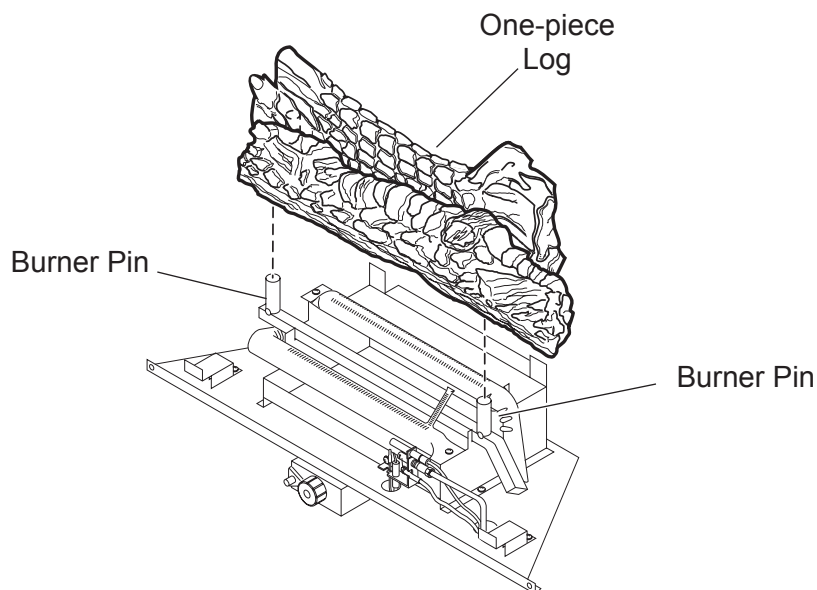


Figure 35 - Proper Sequence of Log Installation (24DBXC)

FLAME APPEARANCE

Flames from the pilot, front and rear burner should be visually checked as soon as the heater is installed. In addition, periodically check the flames visually during operation.

CHECKING THE PILOT FLAME

The pilot flame must always be present when the heater is in operation. It should just touch the top of the thermocouple tip for natural. See Figure 36 and 40 for correct pilot flame.

If the pilot flame does not touch the thermocouple, then the main burner cannot function reliably. See Figure 39 and 41 for incorrect shape of pilot flame.

MILLI-VOLT CONTROL

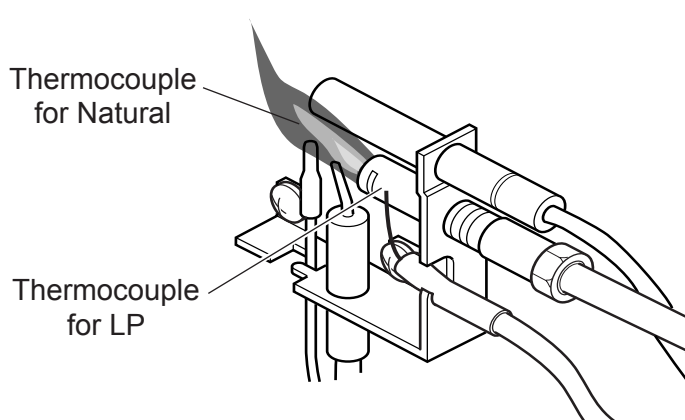


Figure 36 - Correct Appearance of Pilot Flame

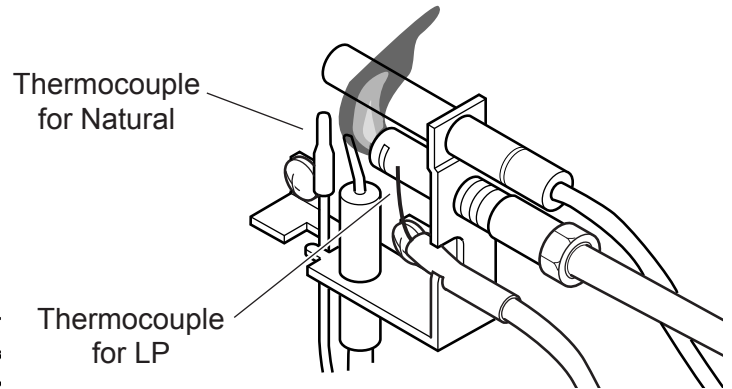


Figure 37 - Incorrect Appearance of Pilot Flame

MANUAL AND THERMOSTAT CONTROL

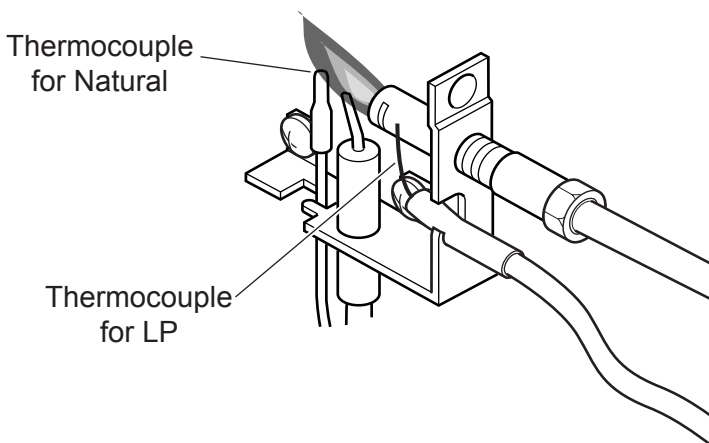


Figure 38 - Correct Appearance of Pilot Flame

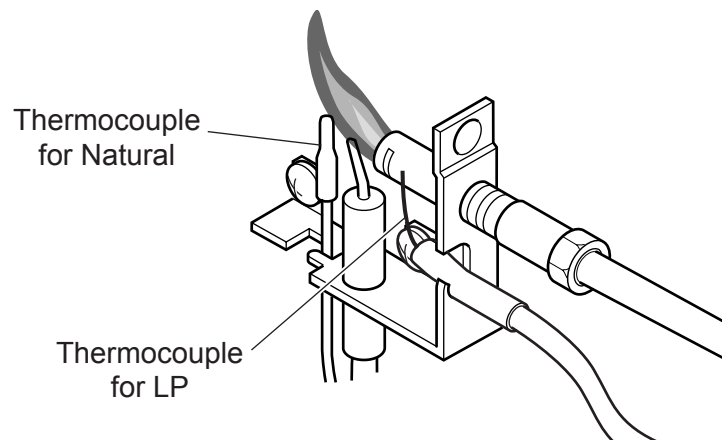


Figure 39 - Incorrect Appearance of Pilot Flame

INSTALLING ROCK WOOL AND CHECKING BURNER FLAME

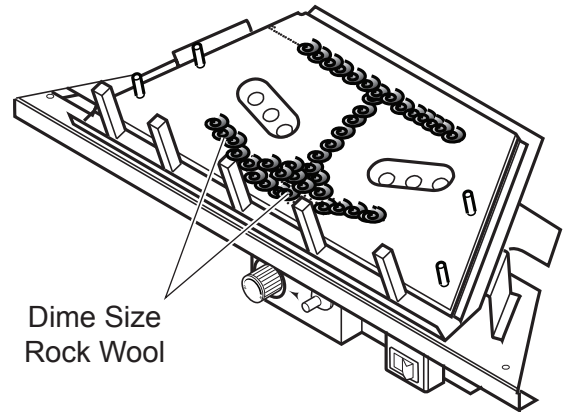
PLACING ROCK WOOL

24VFSC AND 32VFSC MODELS

After installing logs, pull apart dime-size pieces of rock wool. Sprinkle rock wool evenly over burner ports. Wash hands after installing rock wool. Itching may occur.

WARNING

- Use only rock wool provided with log set.
- Do not add additional rock wool.
- Place rock wool on burner ports only.
- Keep air gap between rear log and burner CLEAN.



**Figure 40 - Rockwool Installation
(24VFSC and 32VFSC)**

CHECKING BURNER FLAME

24DBXC MODEL

In normal operation at full rate after 15 minutes, the following flame appearances should be observed:

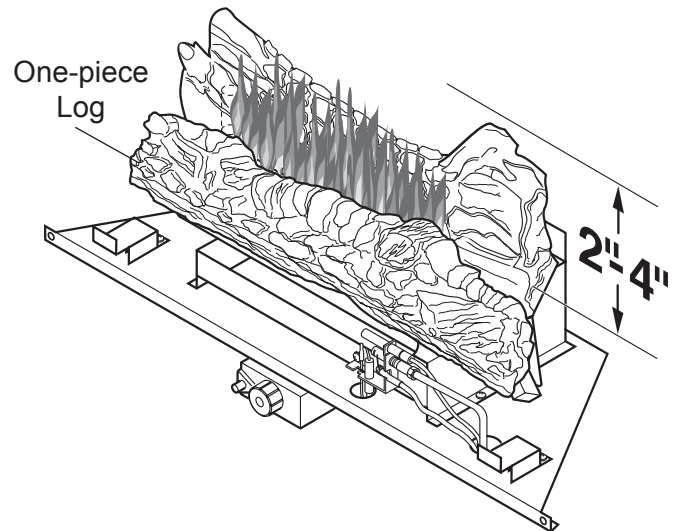
The flames inside the one-piece log may be yellow. The flames should extend approximately 2" - 4" above the log. See Figure 41.

24VFSC AND 32VFSC MODELS

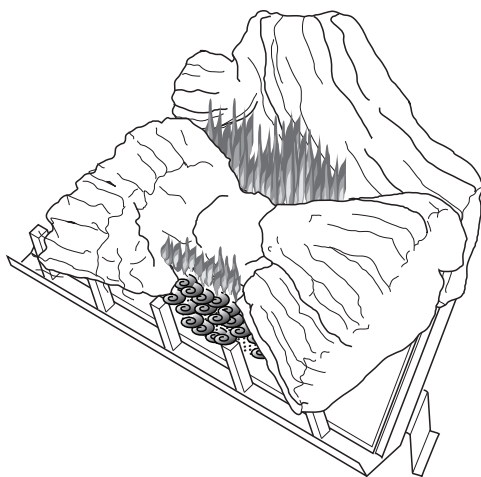
In normal operation at full rate after 15 minutes, the following flame appearances should be observed:

Burner will have a random pattern of yellow flames. See Figures 42 and 43. There should be glowing embers in front of burner.

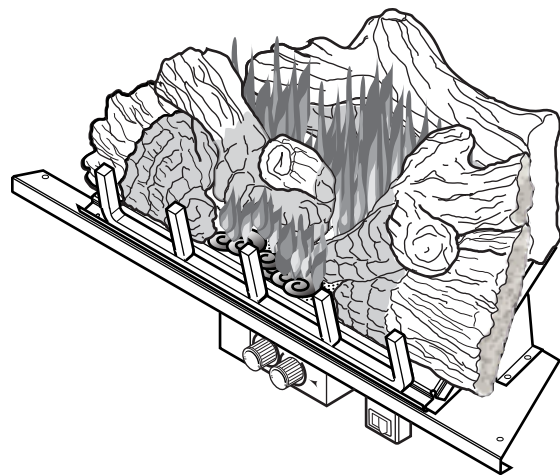
NOTE: The front flames and embers will be an opaque orange color during the burn off time.



**Figure 41 - Correct Appearance of Flames
(24DBXC)**



**Figure 42 - Correct Appearance of Flames
(24VFSC)**



**Figure 43 - Correct Appearance of Flames
(32VFSC)**

CHECKING THE BURNER FLAME

OPERATING INSTRUCTIONS

Avoid any drafts that alter burner flame patterns. Do not allow fans to blow directly into the fireplace. Do not place a blower inside the burn area of the firebox. Ceiling fans may create drafts that alter flame patterns. Sooting and improper burning will result.

During manufacturing, fabricating and shipping, various components of this appliance are treated with certain oils, films or bonding agents. These chemicals are not harmful, but may produce annoying smoke and smells as they are burned off during the initial operation of the appliance, possibly causing headaches or eye or lung irritation. *This is a normal and temporary occurrence.*

The initial break-in operation should last two to three hours with the burner at the highest setting. Provide maximum ventilation by opening windows or doors to allow odors to dissipate. Any odors remaining after this initial break-in will be slight and will disappear with continued use.

This appliance must not be used with glass doors in the closed position. This can lead to pilot outages and severe sooting outside the fireplace.

FOR YOUR SAFETY READ BEFORE LIGHTING**WARNING**

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- A.** This appliance is equipped with a piezo ignition device which automatically lights the pilot. If piezo is not working properly see *Match Lighting Instructions, page 33*.
- B.** BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS:

- Do not attempt to light any appliance.
 - Do not touch any electric switch; do not use any phone in your building.
 - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
 - If you cannot reach your gas supplier, call the fire department.
- C.** Use only your hand to push in, or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.
- D.** Do not use this appliance if any part of it has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.

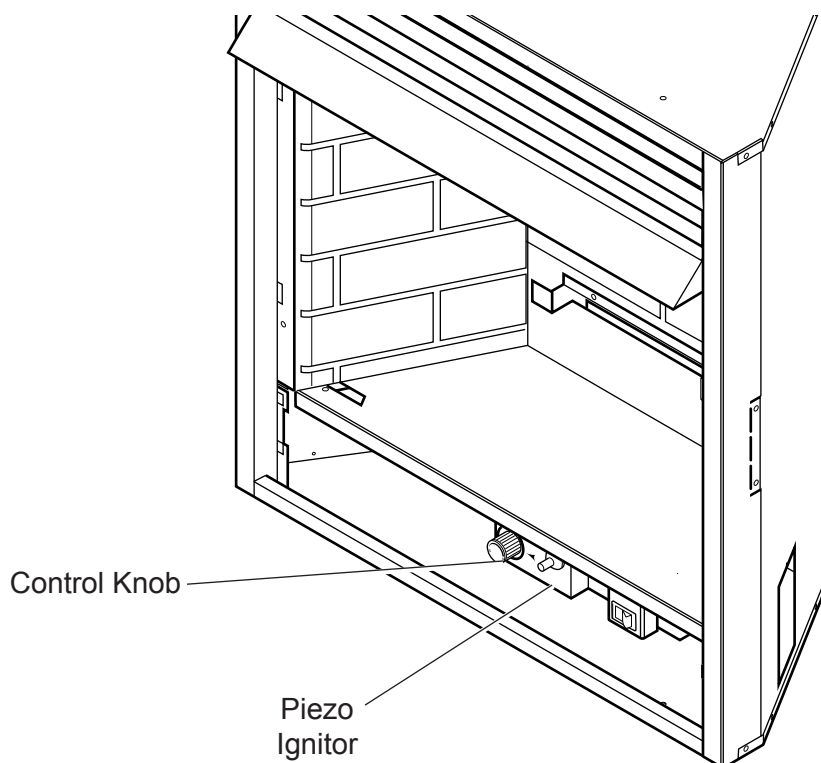


Figure 44 - Location of Piezo Ignitor & Control Knob

OPERATING INSTRUCTIONS

MANUAL CONTROL LIGHTING INSTRUCTIONS

1. STOP! Read the safety information.
2. Make sure the manual shutoff valve is fully open.
3. This heater is equipped with an ignition device (piezo) which automatically lights the pilot.
4. See *Figure 43, page 29* for the location of the piezo ignitor and control knob. Push in gas control knob slightly and turn control knob clockwise to the OFF position.
NOTE: Knob cannot be turned to OFF unless knob is pushed in slightly. Do not force.
5. Wait 5 minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas STOP! Follow the instructions under *What To do if You Smell Gas, page 29*. If you do not smell gas, go to the next step.
6. From OFF position, push in gas control knob slightly and turn counterclockwise to the IGN position. See *Figure 45*. Push in and hold control knob for 5 seconds.
NOTE: If you are running the heater for the first time, it will be necessary to press in the control knob for 30 seconds to allow air to bleed out of the gas piping.
7. With the control knob pushed in, push and release the piezo ignitor button to light the ODS pilot. The pilot is located behind the left front log and the left side of the burner. If piezo ignitor does not light the pilot, see *Match Lighting Instructions, page 33*.
8. Hold the control knob in for an additional 10 seconds to prevent the ODS pilot from shutting off the gas while the thermocouple is warming up.
9. Release the control knob.
 - If the knob does not pop out when released, stop and immediately call your service technician or gas supplier.
 - If the ODS pilot will not stay lit after several tries, push and turn the gas control knob clockwise to OFF and wait 15 seconds. Repeat steps 6 through 9.
10. Push in control knob and turn counterclockwise to the HIGH setting. At this location the control knob will pop out when positioned correctly. The knob can now be positioned at any position between HIGH and LOW. Refer to *Figures 46 and 47*.

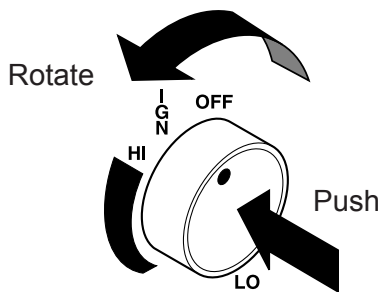


Figure 45 - IGN Position

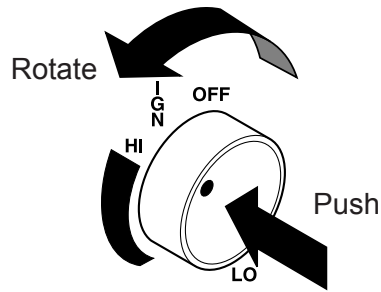


Figure 46 - HIGH Position

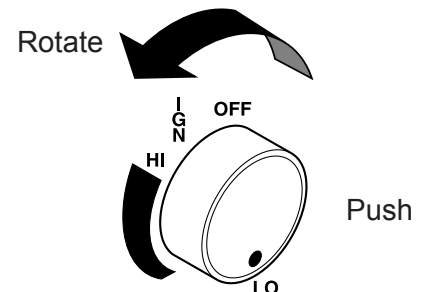


Figure 47 - LOW Position




WARNING

Wait 30 seconds before readjusting the heater when the control knob has been turned down to a lower setting.

TO TURN OFF GAS TO HEATER

1. Turn control knob clockwise to OFF position to completely shut off the heater.
2. If applicable: Turn off all electric power to the heater.

THERMOSTATIC CONTROL LIGHTING INSTRUCTIONS

1. STOP! Read the safety information .
2. Make sure the manual shutoff valve is fully open.
3. This heater is equipped with an ignition device (piezo) which automatically lights the pilot.
4. See *Figure 44, page 29* for the location of the piezo ignitor and control knob. Turn control knob clockwise  to the OFF position.
5. Wait 5 minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow safety instructions under *What To do if You Smell Gas, page 29*. If you do not smell gas, go to the next step.
6. Turn the gas control knob counterclockwise  to the IGN position. See *Figure 40*. Push in and hold control knob for 5 seconds.
7. With the control knob pushed in and held, push and release the piezo ignitor button to light the ODS pilot. The pilot is located on the right side of the heater, behind the front log and in front of the burner. If piezo ignitor does not light the pilot, see *Match Lighting Instructions, page 32*.
8. Hold the control knob in for an additional 10 seconds to prevent the ODS pilot from shutting off the gas while the thermocouple is warming up.
9. Release the control knob.
 - If the knob does not pop out when released, stop and immediately call your service technician or gas supplier.
 - If the ODS pilot will not stay lit after several tries, push and turn the control knob clockwise  to OFF. Release and wait 15 seconds. Repeat steps 6 through 9.
10. Turn control knob to any position between LOW and HIGH. The knob position controls the thermostat temperature. See *Figure 48*.
11. The heater is now in proper operation. The following procedure should be used to achieve thermostatic control of the desired room temperature.
 - a. Operate unit at higher setting until desired room temperature is achieved.
 - b. At the desired temperature, slowly turn the knob clockwise and stop rotating when flame disappears.
 - c. Thermostat is now set to maintain the current room temperature.
 - d. As the room temperature decreases, the thermostat valve will open to ignite the front and rear burner.
 - e. When the temperature reaches its set point (knob position), the thermostat valve will again shut off the burner.
 - f. This is the normal cycle of the heater.

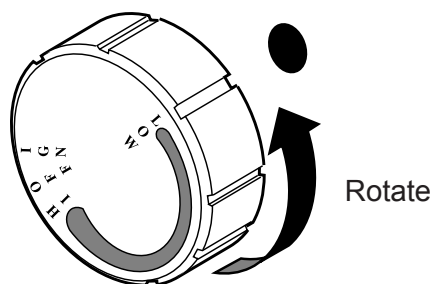



Figure 48 - Rotation of Control Knob

WARNING




Wait 30 seconds before readjusting the heater when the control knob has been turned down to a lower setting.

TO TURN OFF GAS TO HEATER

1. Turn control knob clockwise  to **OFF** position to completely shut off the heater.
2. If applicable: Turn off all electric power to the heater.

OPERATING INSTRUCTIONS

MILLI-VOLT CONTROL LIGHTING INSTRUCTIONS

1. STOP! Read the safety information label.
2. Make sure the manual shutoff valve is fully open.
3. This gas log set is equipped with an ignition device (piezo) which automatically lights the pilot. If piezo ignitor does not light the pilot, See instructions for *Match Lighting Instructions*, page 32.
4. Turn gas control knob clockwise  to the OFF position, set the thermostat to the lowest setting and turn ON/OFF switch to OFF position.
5. Wait (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information label. If you don't smell gas, go to next step.
6. From OFF position, turn the gas control knob counterclockwise  to IGN position. Push in control knob for 5 seconds.
7. With the control knob pushed in, push in and release the piezo ignitor button to light the pilot.
8. Continue pushing the control knob in for a further 60 seconds to prevent the flame detector from shutting off the gas while the probe is warming up. Release the control knob.
9. Turn gas control knob counterclockwise  to the ON position.
10. After the pilot has been lit for one minute, the burners can be turned on. Turn the ON/OFF switch to ON position or adjust thermostat to desired setting.
11. If the gas logs will not operate, follow the instructions *To Turn Off Gas To Appliance* below and call your service technician or gas supplier.

WARNING

Wait 30 seconds before readjusting the heater when the control knob has been turned down to a lower setting.

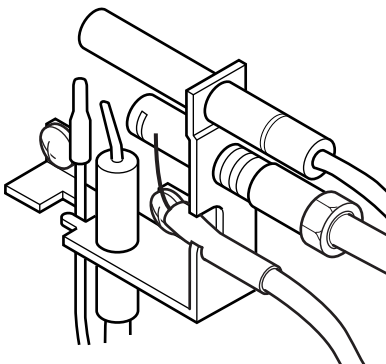


Figure 49 - Pilot

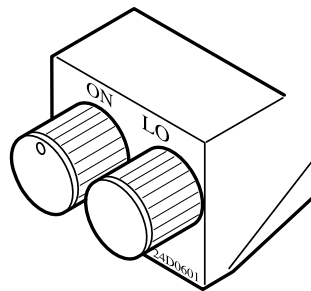


Figure 50 - Control Knobs

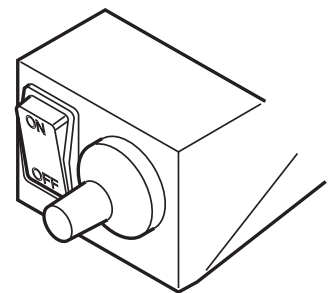



Figure 51 - Piezo

TO TURN OFF GAS TO HEATER

1. Turn control knob clockwise  to **OFF** position to completely shut off the heater.
2. If applicable: Turn ON/OFF switch to OFF position and/or set thermostat (if present) to lowest setting.
3. If applicable: Turn off all electric power to the heater.

MATCH LIGHTING INSTRUCTIONS

1. Remove any items necessary for easy access to the pilot (for example: logs, screens, etc.).
2. Follow appropriate lighting instructions found previously. Instead of pushing and releasing the piezo button, light a match and hold the flame to the end of the pilot and ignite the pilot.
3. After control knob has been released and pilot stays lit, reinstall any items that were removed for pilot access.
4. Call a qualified service technician for repair or replacement of the piezo ignitor.

CLEANING AND SERVICING

Annual inspection and cleaning by your dealer or qualified service technician is recommended to prevent malfunction and/or sooting.

WARNING

Turn off heater and allow to cool before cleaning. Disconnect electrical power before cleaning or servicing.

Remove fireplace screen. Carefully lower screen from mounting lugs and set aside during cleaning. See instruction manual for installation of screen. **DO NOT OPERATE THE UNIT WITH THE SCREEN REMOVED.**

Remove logs, handling carefully by holding gently at each end. Gloves are recommended to prevent skin irritation from ceramic fibers. If skin becomes irritated, wash gently with soap and water. See manual for correct log placement.

PERIODIC CLEANING - See parts diagram for location of items discussed below.

- Do not use cleaning fluid to clean logs or any part of heater.
- Brush logs with soft bristle brush or vacuum with brush attachment.
- Vacuum loose particles and dust from the front and rear burner, control and piezo covers and grate weldment.
- Inspect and clean burner. Remove lint or particles with vacuum, brush or pipe cleaners.
- External case should be dusted and wiped with a wet soapy cloth.

ANNUAL CLEANING/INSPECTION - See parts diagram for location of items discussed below.

- Inspect and clean all burner ports.
- Inspect ODS pilot for operation and accumulation of lint at air intake holes.
- Verify flame pattern and log placement for proper operation.
- Verify smooth and responsive ignition of burner.

BLOWER AND OTHER OPTIONAL EQUIPMENT

OPTIONAL EQUIPMENT

FORCED AIR KIT

If you are installing the forced air kit (Models BLO24-T, BLO24-TB or BLOT), see the installation instructions provided with the kit for electrical wiring requirements or the blower installation section.

Model 24VFSC uses blower model BLO24T.

Model 32VFSC uses blower model BLOT.

Model 24DBXC uses blower model BLO24TB.

The firebox must be connected to main power supply at time of firebox installation. The blower must be installed prior to the installation of the unvented heater. The electrical connections must be made before the firebox is framed and enclosed in the finished walls.

BRASS LOUVERS

Optional brass louvers may be installed in place of the factory installed black louvers. See installation instructions provided with the brass louvers.

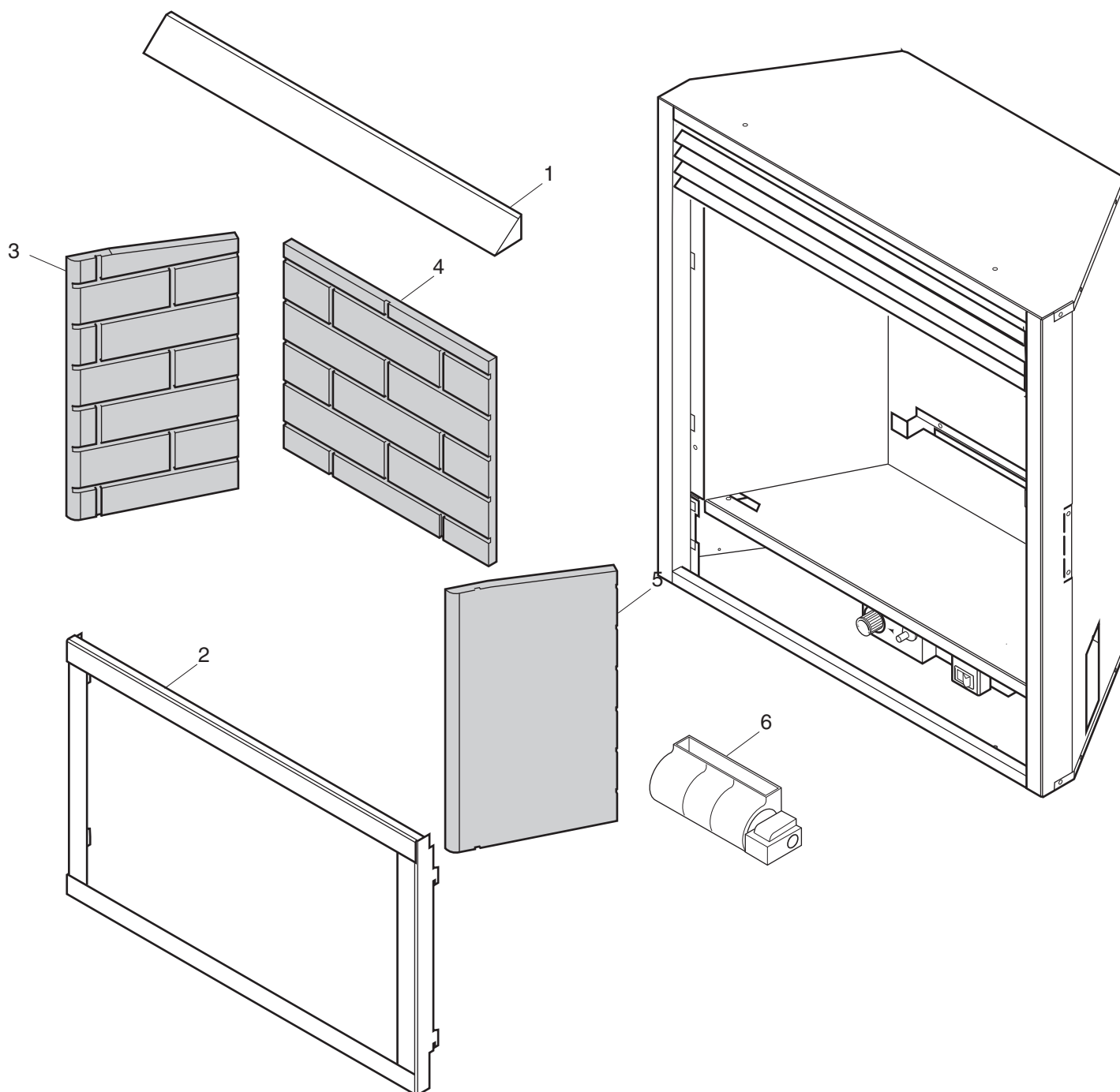
FIREBRICKS

Optional firebrick kits can be installed. See installation instructions provided with kit or *see page 11*.

CAUTION

Electrical connections should only be performed by a qualified, licensed electrician, main power must be off when connecting to main electrical power supply or performing service.

ILLUSTRATED PARTS BREAKDOWN FOR CABINET ACCESSORIES



STANDARD FEATURES

| ITEM | DESCRIPTION | QTY | 24VFSC | 24DBXC | 32VFSC |
|------|-----------------------------|-----|---------|---------|---------|
| 1 | Canopy | 1 | 33D4000 | 33D4000 | 33D5000 |
| 2 | Screen Assembly | 1 | 33D4501 | 33D4501 | 33D5501 |
| 3 | Left Firebrick (Optional) | 1 | 33D4033 | 33D4033 | 33D5032 |
| 4 | Center Firebrick (Optional) | 1 | 33D4032 | 33D4032 | 33D5031 |
| 5 | Right Firebrick (Optional) | 1 | 33D4034 | 33D4034 | 33D5033 |
| 6 | Blower (Optional) | 1 | BLO24T | BLO24TB | BLOT |

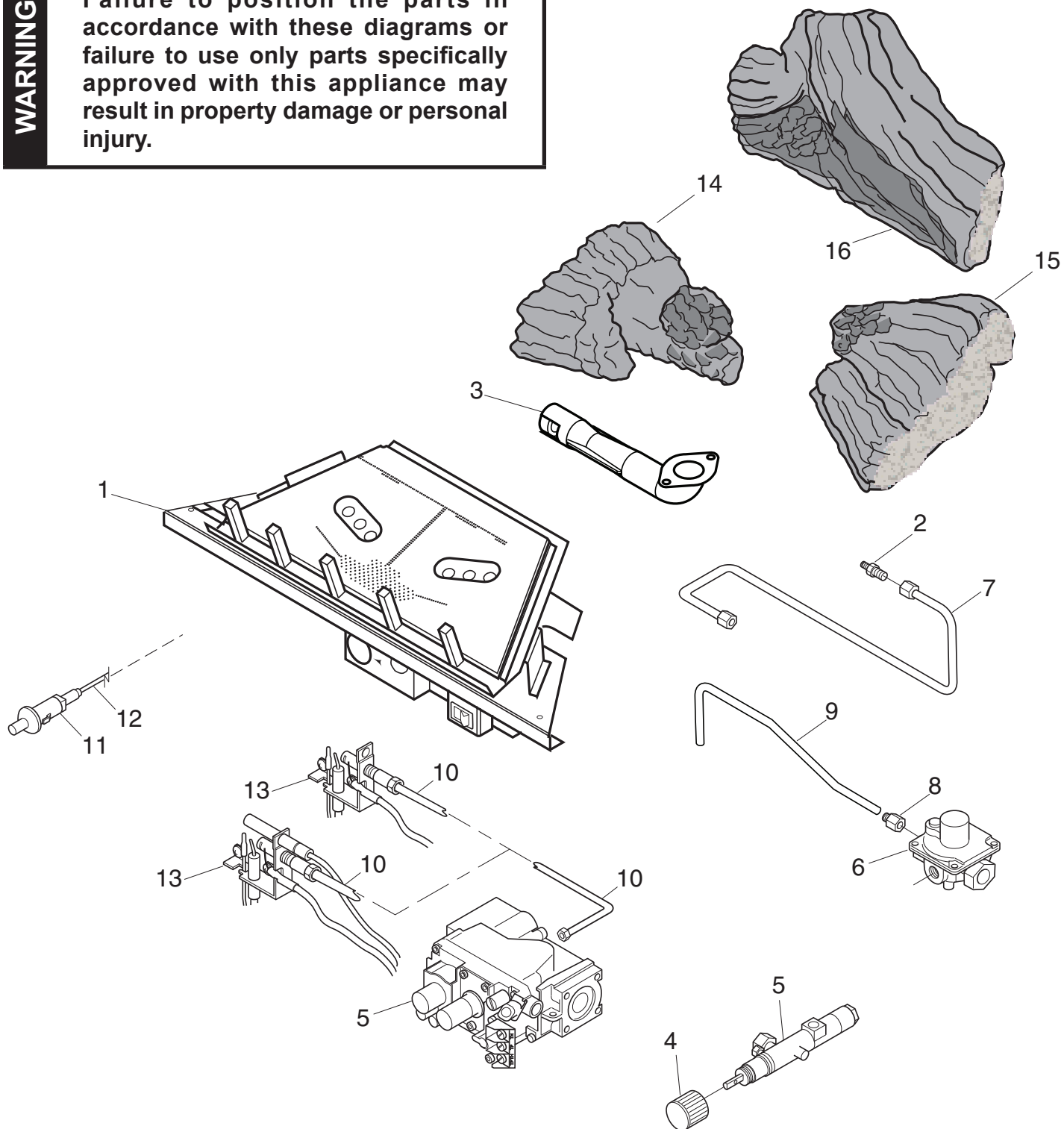
ILLUSTRATED PARTS BREAKDOWN

24VFSC MILLI-VOLT

24VFSC MANUAL

WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.



REPLACEMENT PARTS LIST

REPLACEMENT PARTS ARE AVAILABLE THROUGH YOUR RETAILER.

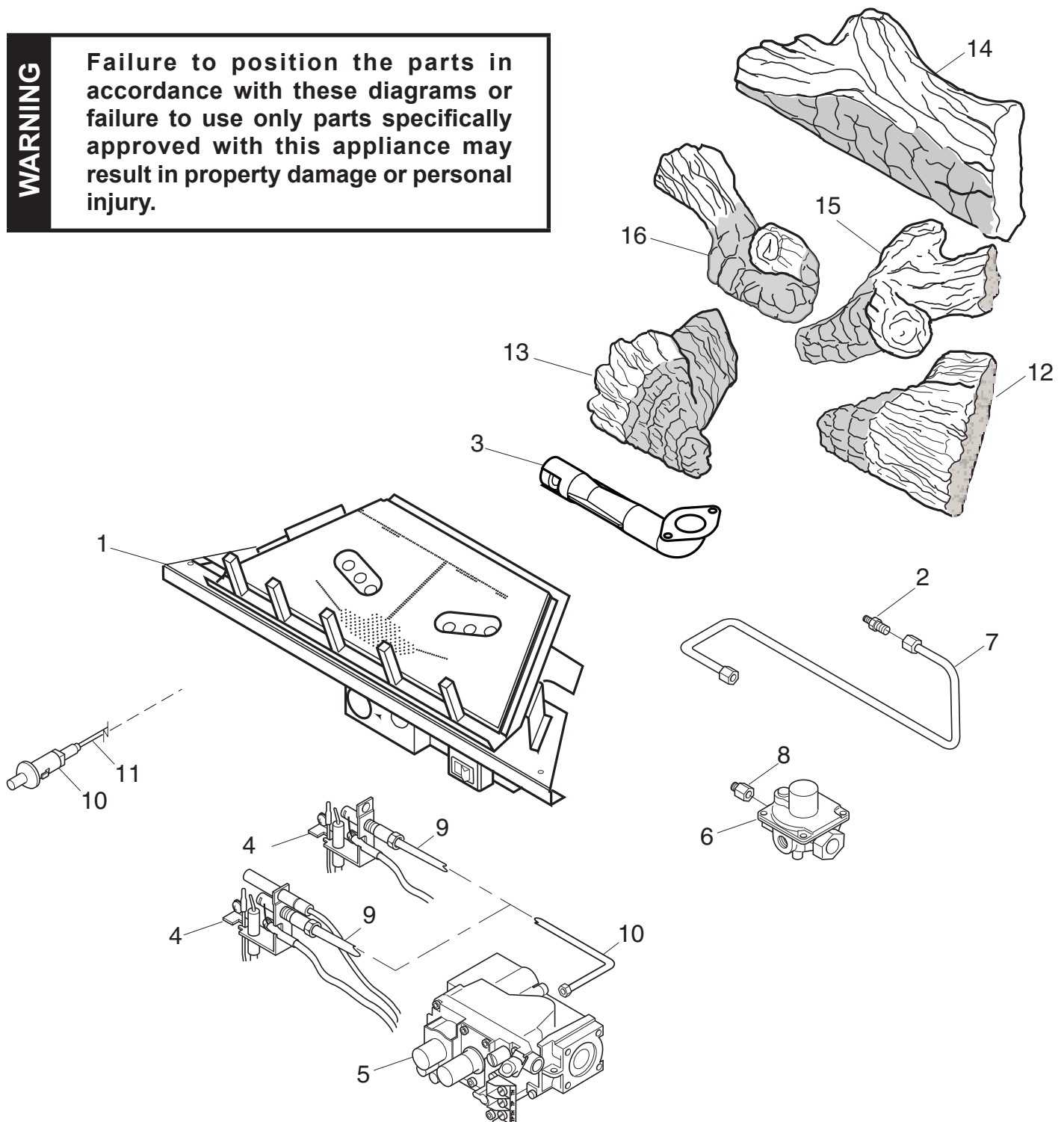
| ITEM | DESCRIPTION | QTY | 24VFSC MILLIVOLT | | 24VFSC MANUAL | |
|-----------------------------------|----------------------------|-----|------------------|---------|---------------|---------|
| | | | NATURAL | PROPANE | NATURAL | PROPANE |
| 1 | Burner/Grate Assembly | 1 | 33D4043 | 33D4043 | 33D4043 | 33D4043 |
| 2 | Injector | 1 | 59D0062 | 33D4046 | 59D0062 | 33D4046 |
| 3 | Venturi | 1 | 58D0454 | 33D4058 | 58D0454 | 33D4058 |
| 4 | Control Knob | 1 | — | — | 18D0603 | 18D0603 |
| 5 | Milli-Volt Valve | 1 | 14D0467 | 14D0468 | — | — |
| 5 | Manual Control Valve | 1 | — | — | 30D0201 | 30D0202 |
| 6 | Pressure Valve Regulator | 1 | 14D0469 | — | 24D0305 | 24D0306 |
| 7 | Burner to Valve Tube | 1 | 33D4511 | 33D4511 | 33D4513 | 33D4513 |
| 8 | Tube Fitting, 3/8 x 5/16 | 1 | 11V0313 | 11V0313 | 11V0313 | 11V0313 |
| 9 | Regulator Valve Tube, 5/16 | | — | — | 33D4512 | 33D4512 |
| 10 | ODS Pilot Valve Tube, 3/16 | 1 | 49D0050 | 49D0050 | 49D0050 | 49D0050 |
| 11 | Piezo Ignitor | 1 | 14D0503 | 14D0503 | 14D0503 | 14D0503 |
| 12 | Piezo Wire | 1 | 00K0632 | 00K0632 | 00K0632 | 00K0632 |
| 13 | ODS Pilot Assembly | 1 | 14D0473 | 14D0477 | 26D2529 | 14D0476 |
| LOG SET | | | | | | |
| 14 | #1 Left Log | 1 | 33D4040 | 33D4040 | 33D4040 | 33D4040 |
| 15 | #2 Right Log | 1 | 33D4041 | 33D4041 | 33D4041 | 33D4041 |
| 16 | #3 Rear Log | 1 | 33D4039 | 33D4039 | 33D4039 | 33D4039 |
| PARTS AVAILABLE, NOT SHOWN | | | | | | |
| | Tube Nut, 3/16 | 1 | — | — | 00F0077 | 00F0077 |
| | Tube Ferrule, 3/16 | 1 | — | — | 00F0078 | 00F0078 |
| | Tube Nut, 5/16 | 1 | 00K0917 | 00K0917 | — | — |
| | Tube Nut, 5/16 | 3 | — | — | 00K0917 | 00K0917 |
| | Tube Ferrule, 5/16 | 1 | 00K0918 | 00K0918 | — | — |
| | Tube Ferrule, 5/16 | 3 | — | — | 00K0918 | 00K0918 |
| | Flex Tube with Fittings | 1 | 20H0022 | 20H0022 | 20H0022 | 20H0022 |
| | 8 Grams Rock Wool Bag | 1 | 58D0443 | 58D0443 | 58D0443 | 58D0443 |

ILLUSTRATED PARTS BREAKDOWN

32VFSC MILLI-VOLT

WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.



REPLACEMENT PARTS LIST

REPLACEMENT PARTS ARE AVAILABLE THROUGH YOUR RETAILER.

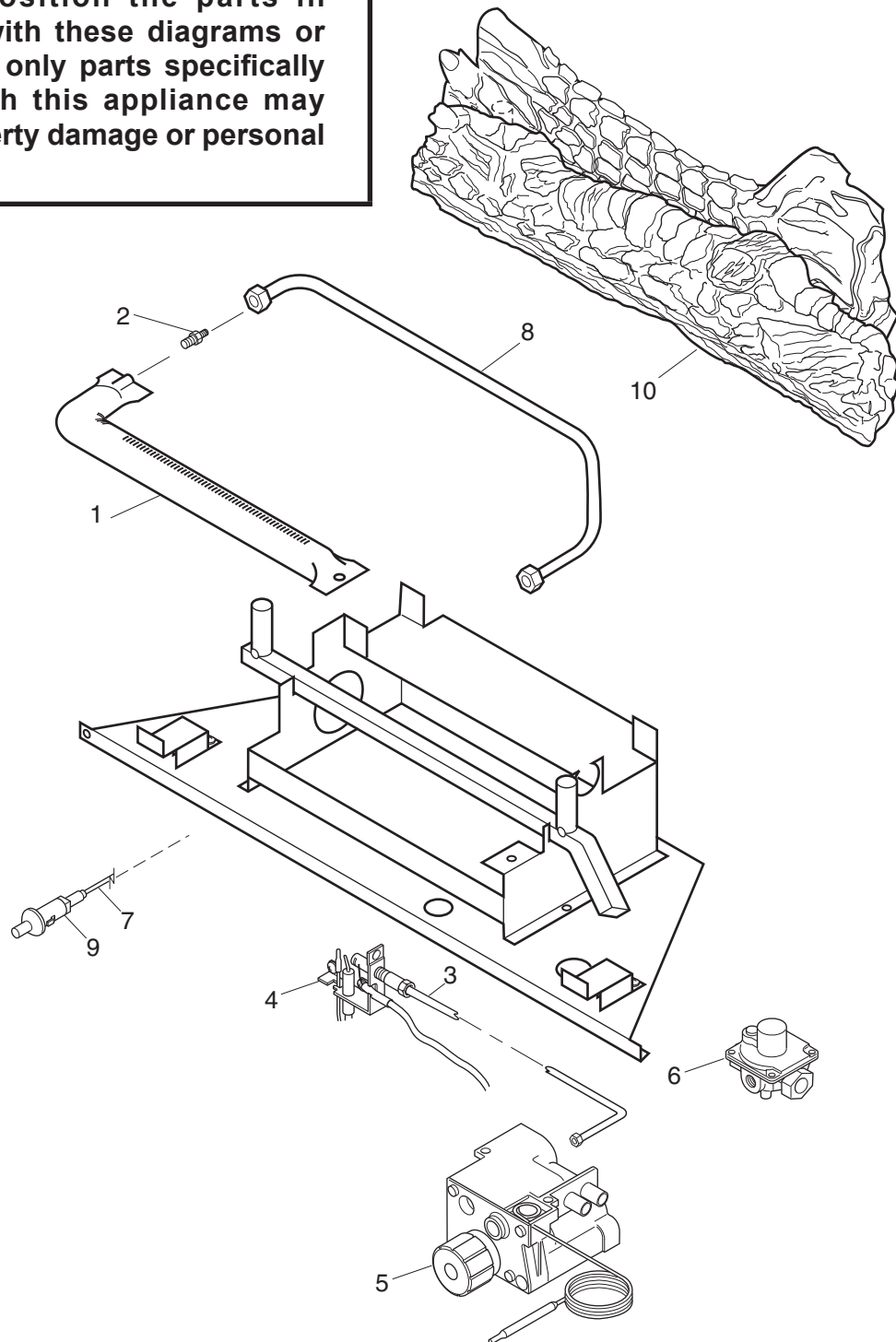
| ITEM | DESCRIPTION | QTY | 32VFSC MILLIVOLT | |
|-----------------------------------|----------------------------|-----|------------------|---------|
| | | | NATURAL | PROPANE |
| 1 | Burner/Grate Assembly | 1 | 33D5050 | 33D5050 |
| 2 | Injector | 1 | 33D5040 | 33D5039 |
| 3 | Venturi | 1 | 58D0454 | 33D4058 |
| 4 | ODS Pilot Assembly | 1 | 14D0473 | 14D0477 |
| 5 | Milli-Volt Valve | 1 | 14D0467 | 14D0468 |
| 6 | Pressure Valve Regulator | 1 | 14D0469 | — |
| 7 | Burner to Valve Tube | 1 | 33D5511 | 33D5511 |
| 8 | Tube Fitting, 3/8 x 5/16 | 1 | 11V0313 | 11V0313 |
| 9 | ODS Pilot Valve Tube, 3/16 | 1 | 49D0050 | 49D0050 |
| 10 | Piezo Ignitor | 1 | 14D0503 | 14D0503 |
| 11 | Piezo Wire | 1 | 00K0632 | 00K0632 |
| LOG SET | | | | |
| 12 | #1 Right Front Log | 1 | 33D5042 | 33D5042 |
| 13 | #2 Left Front Log | 1 | 33D5043 | 33D5043 |
| 14 | #3 Rear Log | 1 | 33D5044 | 33D5044 |
| 15 | #4 Right Middle Log | 1 | 33D5045 | 33D5045 |
| 16 | #5 Left Middle Log | 1 | 33D5046 | 33D5046 |
| PARTS AVAILABLE, NOT SHOWN | | | | |
| | Tube Nut, 5/16 | 1 | 00K0917 | 00K0917 |
| | Tube Ferrule, 5/16 | 1 | 00K0918 | 00K0918 |
| | Flex Tube with Fittings | 1 | 20H0022 | 20H0022 |
| | 17 Grams Rock Wool Bag | 1 | 70D0039 | 70D0039 |

ILLUSTRATED PARTS BREAKDOWN

24DBXC T-STAT

WARNING

Failure to position the parts in accordance with these diagrams or failure to use only parts specifically approved with this appliance may result in property damage or personal injury.



REPLACEMENT PARTS LIST

REPLACEMENT PARTS ARE AVAILABLE THROUGH YOUR RETAILER.

| | | | 24DBXC T-STAT | |
|-----------------------------------|-------------------------------|-----|---------------|---------|
| ITEM | DESCRIPTION | QTY | NATURAL | PROPANE |
| 1 | Burner | 1 | 33D0070 | 33D0071 |
| 2 | Injector | 1 | 18D0523 | 33D0281 |
| 3 | ODS Pilot Valve Tube, 3/16 | 1 | 49D0050 | 49D0050 |
| 4 | ODS Pilot Assembly | 1 | 26D2529 | 14D0476 |
| 5 | T-stat Control Valve | 1 | 11V0701 | 11V0701 |
| 6 | Pressure Valve Regulator | 1 | 24D0305 | 24D0306 |
| 7 | Piezo Wire | 1 | 00K0632 | 00K0632 |
| 8 | Burner Valve Tube, 1/4 | 1 | 33D4053 | 33D4053 |
| 9 | Piezo Ignitor | 1 | 18D0402 | 18D0402 |
| LOG SET | | | | |
| 10 | #1 Front Log | 1 | 33D0066 | 33D0066 |
| PARTS AVAILABLE, NOT SHOWN | | | | |
| | Tube Nut, 1/4 | 1 | 00F0079 | 00F0079 |
| | Tube Ferrule, 1/4 | 1 | 00F0080 | 00F0080 |
| | NPT Tube Fitting, 3/8 x 1 1/2 | 1 | 18D0310 | 18D0310 |
| | Flex Tube with Fittings | 1 | 20H0022 | 20H0022 |
| | Modulating Screw (Min Flow) | 1 | 972057 | 972057 |
| | NPT Tube Fitting, 3/8 x 1/4 | 1 | 11V0312 | 11V0312 |

WARNING

If the gas quality is bad, your pilot may not stay lit, the burners may produce soot and the heater may backfire when lit. If the gas quality or pressure is low, contact your local gas supplier immediately.

| OBSERVED PROBLEM | POSSIBLE CAUSE | REMEDY |
|---|---|--|
| ODS/pilot lights, but flame goes out when control knob is released. | 1. Control knob not fully pressed in. | 1. Press in control knob fully. |
| | 2. Control knob not pressed in long enough. | 2. After ODS/pilot lights, keep control knob pressed in for 30 seconds. |
| | 3. Manual shutoff valve not fully open. | 3. Fully open manual shutoff valve. |
| | 4. Thermocouple connection loose at control valve. | 4. Hand tighten thermocouple connection until snug, then tighten 1/4 turn more. |
| | 5. Pilot flame not touching thermocouple, which allows thermocouple to cool, causing pilot flame to go out. This problem could be caused by either low gas pressure, or a dirty or partially clogged ODS/pilot. | 5. Contact local gas company. |
| | 6. Thermocouple damaged. | 6. Replace thermocouple. |
| | 7. Control valve damaged. | 7. Replace control valve. |
| Burner does not light after ODS/pilot is lit. | 1. Burner orifice is clogged. | 1. Burner orifice is clogged. |
| | 2. Burner orifice diameter is too small. | 2. Burner orifice diameter is too small. |
| | 3. Inlet gas pressure is too low. | 3. Inlet gas pressure is too low. |
| Burner backfires during combustion | 1. Manifold pressure is too low. | 1. Contact local gas company. |
| | 2. Burner orifice is clogged. | 2. Clean burner or replace burner orifice. |
| Slight smoke or odor during initial operation. | 1. Burner orifice is clogged or damaged. | 1. Clean burner or replace burner orifice. |
| | 2. Burner is damaged. | 2. Replace burner. |
| | 3. Gas regulator defective. | 3. Replace gas regulator. |
| Logs appear to smoke after initial operation. | 1. Vapors from paint or curing process of logs. | 1. Problem will stop after a few hours of operation. Run the heater with the damper open if you have one, or open a window for the first few hours. 2. Log heater is intended to be smokeless. Turn OFF heater and call qualified service person. |
| Heater produces a whistling noise when burner is lit. | 1. Turning control knob to HIGH position when burner is cold. | 1. Turn control knob to LOW position and let warm up for a minute. |
| | 2. Air in gas line. | 2. Operate burner until air is removed from line. Have gas line checked by local gas company. |
| | 3. Dirty or partially clogged burner orifices. | 3. Clean burner or replace burner orifice. |
| No gas to pilot. | 1. LP-regulator shut down due to inlet pressure too high. | 1. Verify LP tank regulator is installed and set at 11" to 13" w.c. 2. Replace regulator on heater. |

LIMITED LIFETIME WARRANTY POLICY

LIFETIME WARRANTY

The following components are warranted for life to the original owner, subject to proof of purchase: Firebox, Combustion Chamber, Heat Exchanger, Grate and Stainless Steel Burners.

FIVE YEAR WARRANTY

The following components are warranted for 5 years to the original owner, subject of proof of purchase: Ceramic Fiber Logs, Catalytic Filter and Aluminized Burners.

BASIC WARRANTY

MHSC warrants the components and materials in your gas appliance to be free from manufacturing and material defects for a period of one year from date of installation. After installation, if any of the components manufactured by MHSC in the appliance are found to be defective in materials or workmanship, MHSC will, at its option, replace or repair the defective components at no charge to the original owner. MHSC will also pay for reasonable labor costs incurred in replacing or repairing such components for a period of one year from the date of installation. Any products presented for warranty repair must be accompanied by a dated proof of purchase.

This Limited Warranty will be void if the appliance is not installed by a qualified installer in accordance with the installation instructions. The Limited Lifetime Warranty will also be void if the appliance is not operated and maintained according to the operating instructions supplied with the appliance, and does not extend to (1) firebox/burner assembly damage by accident, neglect, misuse, abuse, alteration, negligence of others, including the installation thereof by unqualified installers, (2) the costs of removal, reinstallation or transportation of defective parts on the appliance, or (3) incidental or consequential damage. All service work must be performed by an authorized service representative.

This warranty is expressly in lieu of other warranties, express or implied, including the warranty of merchantability of fitness for purpose and of all other obligations or liabilities. MHSC does not assume for it any other obligations or liability in connection with the sale or use of the appliance. In states that do not allow limitations on how long an implied warranty lasts, or do not allow exclusion of indirect damages, those limitations of exclusions may not apply to you. You may also have additional rights not covered in this Limited Warranty.

MHSC reserves the right to investigate any and all claims against the Limited Warranty and decide upon method of settlement.

IF WARRANTY SERVICE IS NEEDED...

1. Contact your supplier. Make sure you have your warranty, your sales receipt and the model/serial number of your MHSC product.
2. DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.

MHSC

149 Cleveland Drive • Paris, Kentucky 40361
www.mhsc.com